a W. R. C. Smith publication

Textile Industries

Formerly "COTTON"

MARCH, 1955

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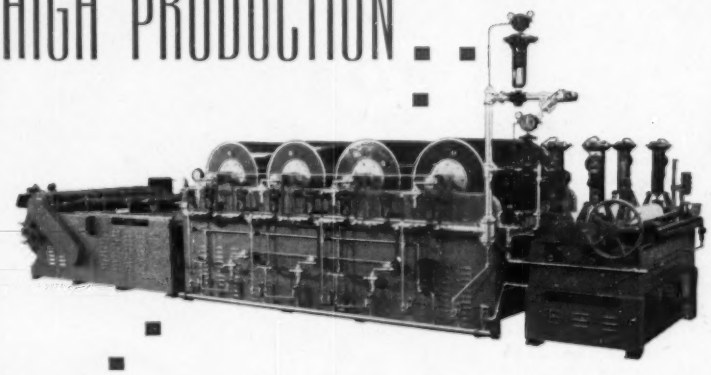

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FOR ANY TYPE YARN

The New Cocker All-Purpose Slasher

Continuous high speeds up to 100 yds. per minute.

Hard beams with 20% to 25% more yarn per loom beam.

Simple doffing.

Large sprocket, double chain drive.

Either single motor or multimotor drive.

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Machine and Foundry Co., Gastonia, N. C.

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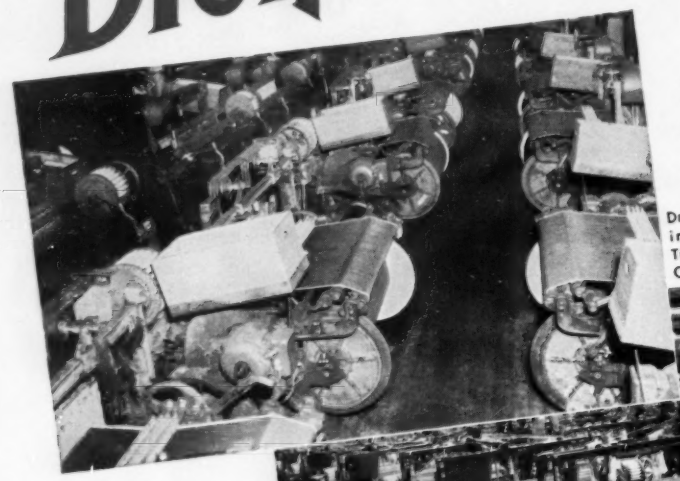
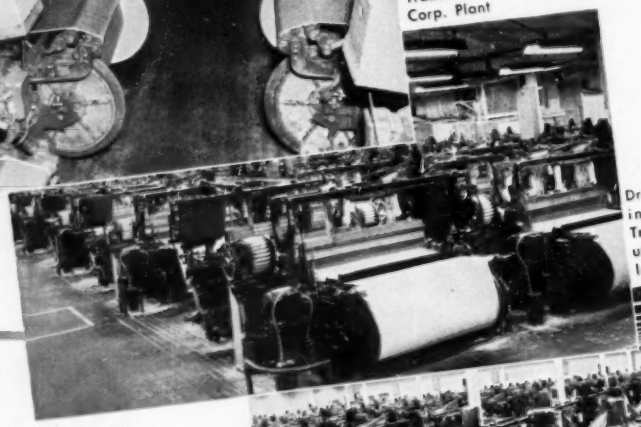
Diehl POWER TRANSMITTER

is assuring maximum weaving efficiency in leading mills

Thousands of Diehl Power Transmitters are operating DRAPER LOOMS in leading textile mills. Many have been in continuous operation for five years.



Draper X2 looms operating with Diehl Power Transmitters in Cone Mills Corp. Plant



Draper XD looms operating with Diehl Power Transmitters at Bibb Manufacturing Company, Columbus, Georgia.

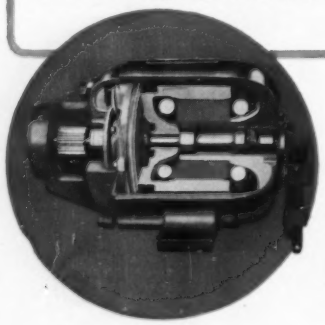
Draper XD looms operating with Diehl Power Transmitters at the Lyons Plant, Synthetic Division, M. Lowenstein and Sons.

MILL MEN ARE ENTHUSIASTIC ABOUT THESE FEATURES

- "Stored energy" for smooth, rapid starts and positive picking.
- Precision braking.
- Minimum fluctuations of speed and motor current.
- Lower power consumption.
- Lower motor heat losses.
- Eliminates current regeneration.
- Simplicity and ease of maintenance.

. . . all of which adds up to increased mill production, improved quality of cloth, lowered operating costs and long, trouble-free service.

We will welcome an opportunity to tell you—without obligation—how the Diehl Power Transmitter can bring these benefits to you.



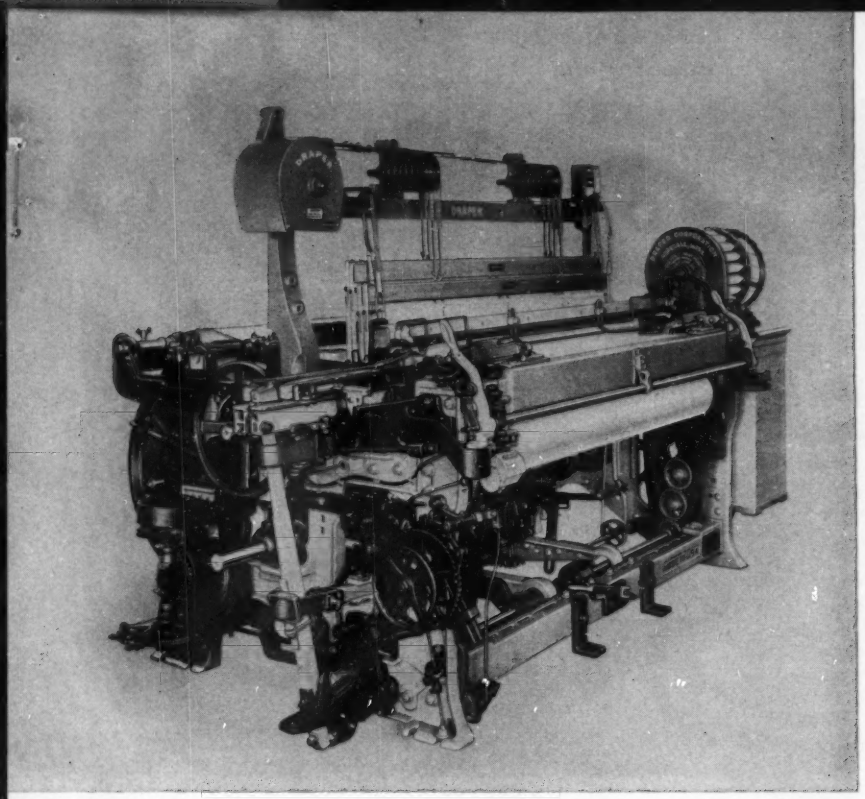
This cutaway view illustrates the inverted construction of the power transmitter and shows the rotor which revolves around the outside of the stator on a hollow shaft—providing the essential inertia without the disadvantages of a separate fly wheel. Note the pinion driving shaft with attached clutch-plate which is shifted axially by simple lever at front end of motor, regulating clutch engagement pressure and providing controlled driving and braking action.

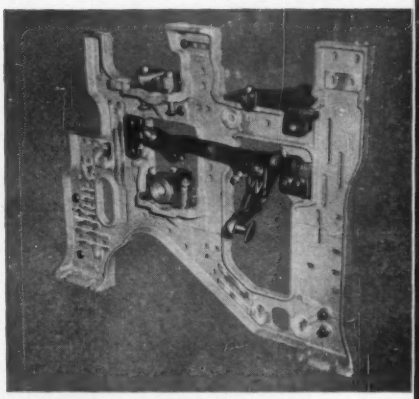
DIEHL MANUFACTURING COMPANY

Electrical Division of THE SINGER MANUFACTURING COMPANY

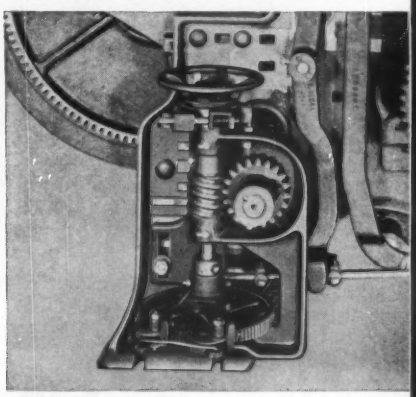
Finderne Plant, SOMERVILLE, NEW JERSEY

ATLANTA • BALTIMORE • BOSTON • CHICAGO • DETROIT • NEW YORK • PHILADELPHIA • WORCESTER





MORE MILLED and broached surfaces ensure better fit . . . less wear on component parts.



SIMPLIFIED DESIGN, precision gearing, and practical use of anti-friction bearings permit more accurate let-off adjustments.

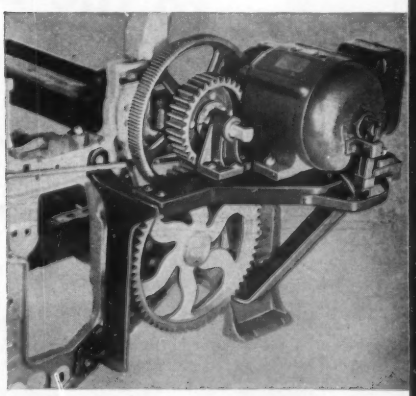
THE DRAPER X-2 IS THE WORLD'S FINEST SINGLE SHUTTLE LOOM

Here's why:

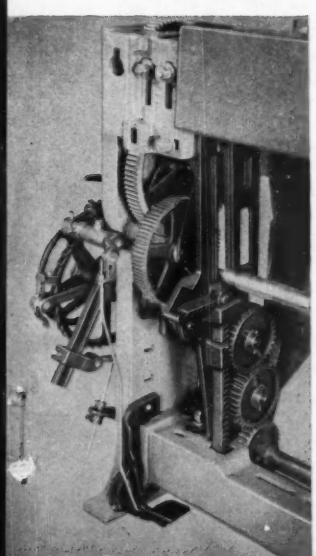
Precision manufacture, rigid construction, and uniform parts permit operation of the Draper X-2 Model Loom at speeds far greater than heretofore possible.

Added efficiency and increased production are direct results of fewer mechanical stops, and the practical application of finer warp and filling controls.

The value of Draper X-2 Looms is clearly indicated by the increasing demand for this model . . . and the *more than* 80,000 *already in use.*



THE DRAPER-DIEHL Power Transmitter . . . a compact power unit providing greater weaving efficiency with less maintenance.



THE RATCHET TAKE-UP permits more accurate yarn control . . . makes it easy to match the pick.

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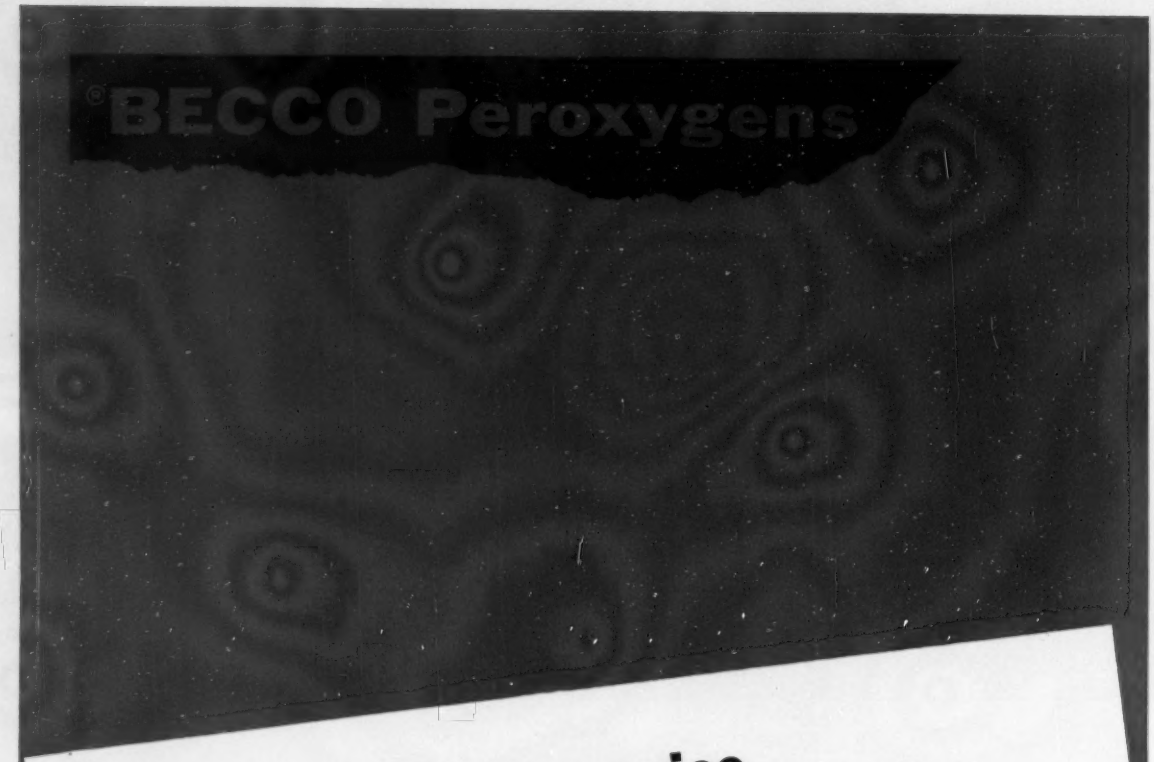

What is BECCO service to the Textile Industry?

It is Peroxygen Chemicals...

Becco hydrogen peroxide for bleaching cotton, wool, animal fibers (including cashmere), synthetics and blends, and for dyestuff oxidation; Becco peracetic acid for bleaching many synthetics and blends; Becco ammonium persulfate for oxidation of sulfur dyes; sodium perborate for dye development.

It is Processes...

Continuous bleaching, continuous knit goods bleaching, kier bleaching, package machine bleaching, Becco cold bleaching (patented), processes for bleaching with peracetic acid ... these and other processes owe much of their development to Becco research.

It is Delivery...

Becco chemicals are manufactured, stored and shipped to reach Becco customers in perfect condition by tank car, truck or in drums from numerous filling stations and warehouses so located as to assure prompt delivery.

It is Technical Service...

Becco has modern laboratories, a large research staff, chemists for research or consultation in your plant. Representatives throughout the country are trained technical men.

It is Technical Literature...

Among interesting Becco bulletins available on request are:

2. Hydrogen Peroxide
4. Peracetic Acid 40%
29. Hydrogen Peroxide Dry-In Process for Bleaching Wool
30. Hydrogen Peroxide in the Manufacture of Viscose
35. Modification of Wool with Peroxygen Compounds
38. Oxidation of Vat Dyes on Cotton and Synthetics with Hydrogen Peroxide
52. Bleaching with Some Peroxygen Chemicals
53. Fluorescent Agents in Hydrogen Peroxide Bleaching of Knit Goods
60. Successful Bleaching of Types 670 and 200 Nylon
61. Knit Goods Bleaching Range

Write for Becco Technical Bulletins by number, or for Becco's Bulletin List.

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Textile Industries

Formerly "COTTON"

Vol. 119, No. 3
March, 1955

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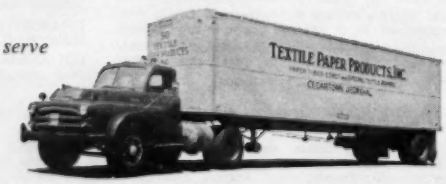


Shorts and Remnants

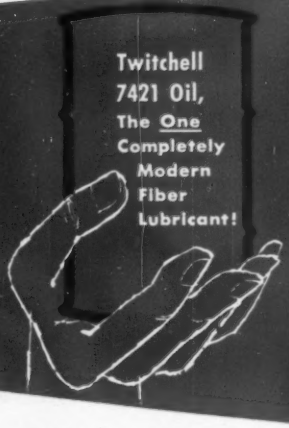
► If ole S & R can be a prophet and forecast good business and better prices for the textile field, he certainly can be an economist—particularly when, in being an economist, he is also a great humanitarian (also Episcopalian). In looking at the tariff situation, we do not want to take the bread out of the mouth nor the clothes off the backs of all of those poor underprivileged people in Japan, India, South America, and so forth. So why not let them sell their textiles to their own folks instead of shipping them to the U.S.A. where our folks are already pretty well clothed, thank you?

► We string along with **E. N. Brower,** president of Brower Mills at Hope Mills, North Carolina, whom we heard make a speech last year in which he said that lowering already low tariffs on textiles would divert cheap labor goods from world scarcity areas to a market already abundantly covered.

► Let's help out our brethern overseas and let them keep some of their textiles. In fact, you might even help your own job by writing to your Congressman not to lower our textile tariffs any further.

► If you think that letter from a guy at Troy, North Carolina, running a chinchilla farm and wanting more room in his basement so he was clearing out his textile winders from there, was unusual, you should see some of the rest of the things that come across our desk. "Parents," a magazine, wants to know whether we used the item on their "Sew-For-September" contest. I guess this goes to our Sewing Editor. However, we don't know just what to do with "Timely Tips on Livestock Feeding" which comes from Dallas, Texas, or with the news that Shawano Development Corporation has entered into the milk production field by buying a dairy farm from Foremost Dairies, Inc., and is going to continue a program of research and development in milk and dairy feeds. Also, if our Livestock Editor has time to vary his program a little bit, he can accept the invitation to our editor from **George H. Soule** of the Advertising Department of E. I. du Pont

Have You Modernized Your Plant but Forgotten Your Fiber Lubricant?



improved TWITCHELL 7421 OIL meets all the requirements of modern machinery, modern blends, and modern costs with—

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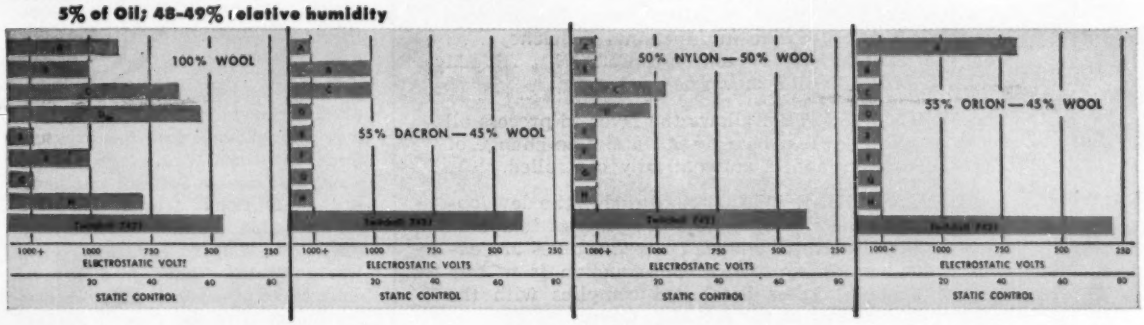

EXCELLENT SCOURABILITY*

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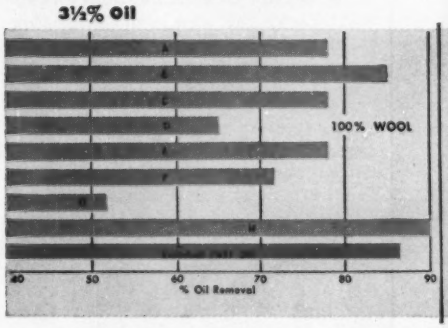
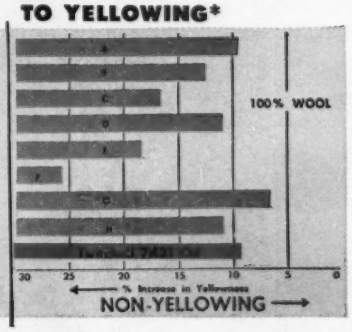


RESISTANCE TO YELLOWING*



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- ***Excellent Lubricity***
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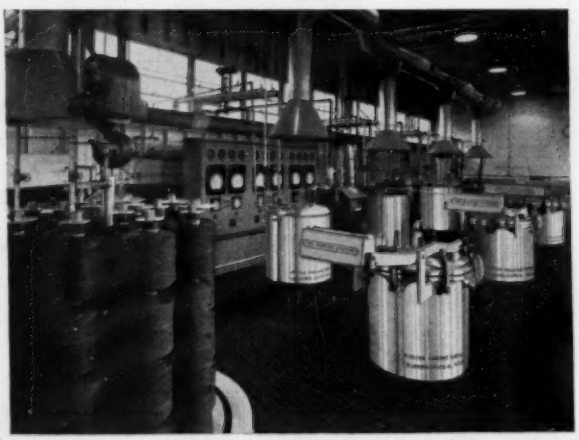
*Early Dyeing establishment: An old Print.

"THEM* DAYS ARE GONE FOREVER"

One look at the conditions under which Early Dyers had to work in the old days should point up how much progress has been made in latter years. The modern dyehouse is the ultimate in functional efficiency . . . like the installation of modern MORTON SYSTEM DYEING MACHINERY shown below.

The MORTON SYSTEM allows the Dyer to process all types of packages and beams with a simple change of material carriers and is automatically controlled.

MORTON MACHINE WORKS pioneered in the development of machinery to dye stock and yarn at temperatures in the 300 degree range. These machines are excellent for use on synthetics. Construction is of any desired grade Stainless Steel and complies with the safety requirements of the A.S.M.E. Code.



THE MORTON SYSTEM DYEING MACHINERY

MORTON

MACHINE WORKS, INC.

COLUMBUS, GEORGIA **U.S.A.**

Shorts and Remnants

de Nemours & Co., Inc., to attend the Southern Weed Conference at St. Petersburg, Florida.

► Also, if you get investigated by the F.B.I., we'll have to plead guilty to putting them on to you. **J. A. Robey,** special agent from Birmingham, Ala., returns to us a copy of a directory of southern textile mills which he says was made available to him by a special agent of the Atlanta, Ga., office of the F.B.I.

► **Hy Hurwitz,** Century Textile Company, New York City, comes a little closer home when he says "I need some 36" OD No. 10 Duck and also some 12.29 oz. Army Duck in the greige." Maybe our Editor has some left over from World War II. He saves a lot of things.

► We do believe you'd be interested in knowing that the U.S. Savings Bond Division of the Treasury Department of Washington, D. C., states that sales of Series E and Series H Savings Bonds for 1954 reached an estimated volume of $4,900,000,000 — the highest since the end of World War II. That's good and we don't know of any better way of saving dough than the Payroll Savings Plan.

► Maybe in 1955 the textile mills will match this sum in modernization —that is if our advertisers carry enough space in TEXTILE INDUSTRIES to sell the mills on modernizing.

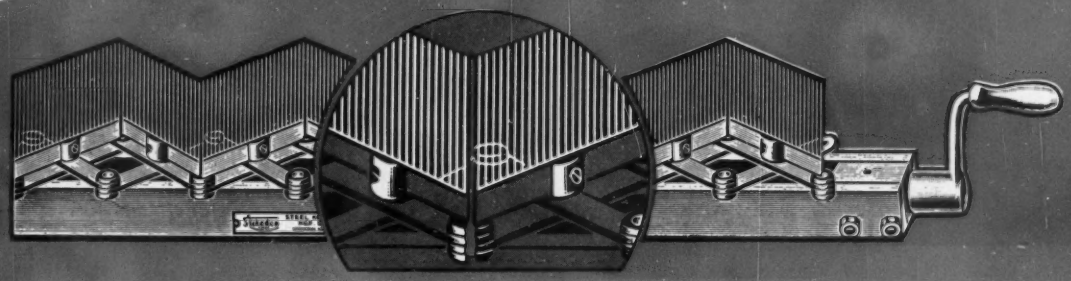
► It looks as if a couple of folks were reading January issue and noticed our offer of reprints for free of "Fibers of the Future." It's less than three weeks, as this is written, since this offer appeared, and requests have already come in from all parts of the U.S.A. and all types of mills wanting from 1 to 100 reprints.

► **C. H. Masland & Sons,** Carlisle, Pa., asked for ten saying, "Our chemists think so highly of the articles they would each like a copy. . ." **B. F. Smith,** Delta Council, Stoneville, Miss., wanted 100 saying, ". . . this is an excellent series of articles, and your publication is to be greatly commended."

► Included in requests for more copies to date are: **Henri Dabek,** Wool Section, Coats & Clark, Inc., New

Look to Stehedco

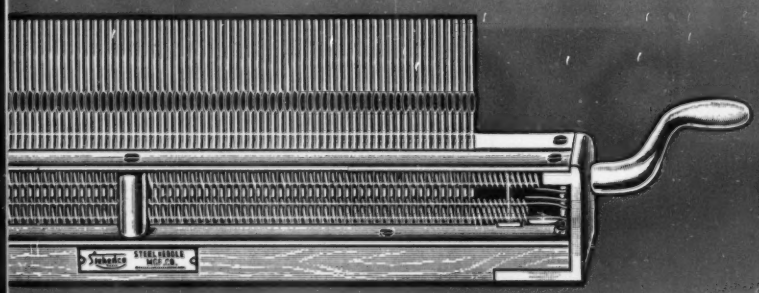
...for these WARPER ACCESSORIES



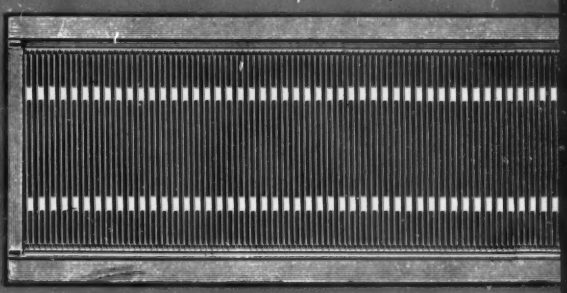
POSITIVE EXPANSION COMBS–

Stehedco construction, best by far, features the locating lug thus insuring faster more accurate positioning at the joints.

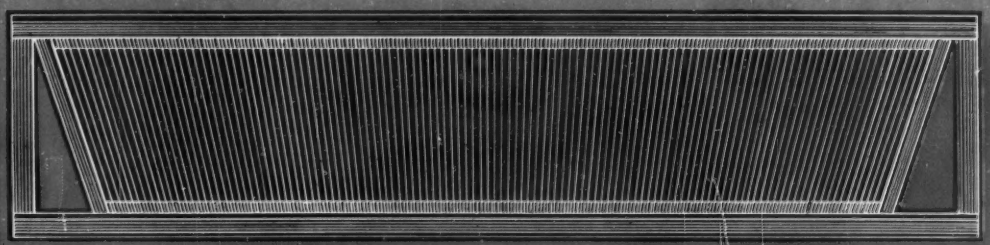
All Stehedco Warper Combs and Reeds are Hard Chrome Plated to give maximum wear resistance



SPRING EXPANSION COMBS — Whatever type you prefer, Stehedco has it! — Screw or Tape type; plain dents, eye dents for leasing or staggered dents. Screw type with eye dents is illustrated.



CROSSING REEDS — Single crossing reed (illustrated) for a single end lease. The Stehedco four way crossing reed is also very popular for obtaining a four sheet and single end lease.



FAN REEDS — Advanced construction methods insure the most uniform spacings possible. A good point to remember is that a fan reed increases in cost and decreases in spacing uniformity as the fan is increased. For best results keep the fan to a minimum.

Sales prints covering any of these items are available upon request. Ordering is simple . . . just fill in the specification blocks on the print.

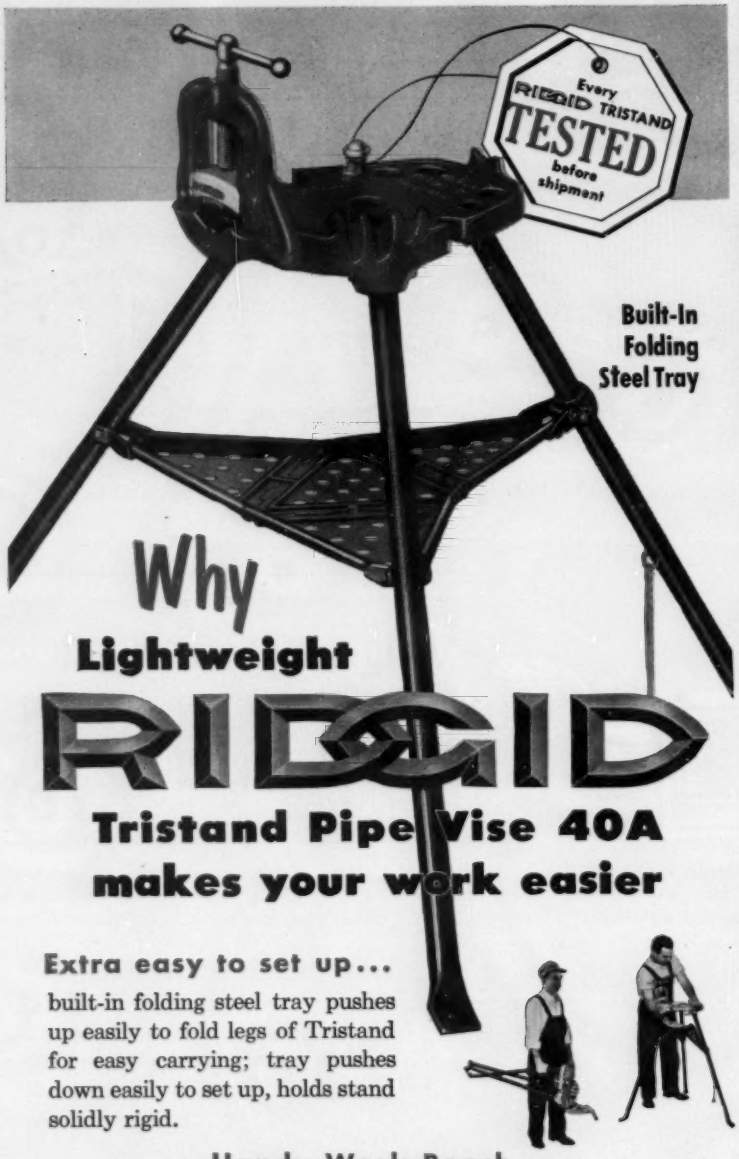
If you need help Stehedco field or plant experts are always available. Watch for the new Stehedco catalog on Warp and Yarn Preparation items coming off the press soon.

Stehedco and Southern
WORLD FAMOUS TRADE MARKS OF THE
Steel Heddle Mfg. Co.

STEEL HEDDLE MFG. CO., 2100 W. Allegheny Ave., Phila. 32, Pa.
SOUTHERN SHUTTLES Paris Plant...Greenville, S. C.
A Division of STEEL HEDDLE MFG. CO.
STEEL HEDDLE COMPANY OF CANADA, LIMITED
310 St. Hubert Street • Granby, Quebec, Canada

Other Plants and Offices: Greenville, S. C. • Atlanta, Ga. • Greensboro, N. C. • Providence, R. I.
Textile Supply Co., Dallas, Texas • Albert R. Breen, Chicago, Ill.

1-R-1



Why Lightweight RIGID Tristand Pipe Vise 40A makes your work easier

Extra easy to set up...

built-in folding steel tray pushes up easily to fold legs of Tristand for easy carrying; tray pushes down easily to set up, holds stand solidly rigid.

Handy Work Bench...

extra-strong stand and tray all one unit. Full size vise-base has 3 benders, ceiling brace screw, lots of tool slots, besides handy tool tray. Most for your money—your Supply House has them, can demonstrate and deliver fast!

THE RIDGE TOOL COMPANY • ELYRIA, OHIO, U.S.A.

RIGID Work-Saver Pipe Tools

Shorts and Remnants

York, N. Y.; **E. C. Hansen,** Technical Dept., Antara Chemicals, New York, N. Y.; **W. G. Morgan,** Supt., Payne Mill, Bibb Mfg. Co., Macon, Ga.; **George Walz,** Chemist, United States Finishing Co., Norwich, Conn.; **Clark G. Berry,** Chemist, New Bedford (Mass.) Rayon Co.; **Leland S. Liang,** Philadelphia, Pa.; **Edward L. Golec,** Dracut, Mass.; **C. S. Knox,** Gates Rubber Co., Denver, Col.; **F. K. Fogleman,** Textile Machine Works, Reading, Pa.; **Norman J. Campbell,** Group Mgr., Harriman (Tenn.) Hosiery Plant, Burlington Mills; **J. E. Bassill,** Pres., American Enka Corp., New York, N. Y.; **John D. Rollins,** Palatine Dyeing Co., Inc., St. Johnsville, N. Y.; **Chas. H. Rutledge,** E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.; **W. G. Fash,** Bates Mfg. Co., Lewiston, Me.; **S. Dembicki,** Canadian Celanese Ltd., Drummondville, Que.; **Libraries**—Canadian Industries, Ltd., Montreal and Providence (R. I.) Public Library; **J. W. Tucker,** American Cyanamid Co., New York, N. Y.; **Harry J. Conn,** Levittown, Pa.; **Dept. Home Economics,** Juniata College, Huntingdon, Pa.; **A. C. Coney,** A. E. Maston & Co., Pittsburgh, Pa.; **Howard L. Leventhal,** Supt., Visking Corp., North Little Rock, Ark.

► We still have reprints for you. Remember the fibers discussed are synthetics, wool, and cotton.

► Speaking of cotton, reminds us of the Texan, selling for Fiberglas, who tells of his youth hoeing and picking cotton and his determination to get as far from it as he could. He says "Here I end up selling 'Yankee Cotton.'" That's a new angle.

► We hope our friends up New York, Pennsylvania, New England, etc., way don't mind a dig now and then at "Yankees," but we do get burned up now and then at the way some of our Yankee competitors in this magazine field copy all the things we do. First, they put offices and editors down here, copy our Modern Equipment and Processing Review Issue; our News Service, etc., etc. Now, bless me if they don't come along and start running news and departments right up in the front of the book like old S & R. Maybe we should be flattered.

► Since we took a little dig at "Time" magazine recently, I guess

SAVE IN PRODUCT HANDLING...

Gaylord Boxes

Want to cut your costs of in-plant handling, warehousing or loading? Here are two ways that Gaylord containers can help you do the job:

Speed up! Sturdy, resilient Gaylord boxes are engineered to stand up under fast handling by modern, high-speed equipment.

Save space! Precision-made Gaylord containers are dimensionally "true." They stand straight and solid... even when stacked high.

For containers to promote profit-saving product handling in your plant, call your nearby Gaylord sales office today.

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT PAPER AND SPECIALTIES • KRAFT BAGS AND SACKS

GAYLORD CONTAINER CORPORATION ★ ST. LOUIS

SALES OFFICES FROM COAST TO COAST ★ CONSULT YOUR LOCAL PHONE BOOK

FOR BETTER VALVE AND UNION PERFORMANCE:

FAIRBANKS®

All Star Team

An unbeatable combination — the "first string" team of valve and union for dependable trouble-free piping installations.

Look at the lineup:

U-01 BRONZE GLOBE VALVE

★ Renewable Composition Disc

Perfect sealing at all times—

A disc for every type of service—

#50—a hard disc for general usage

#52—a rubber disc for cold water valves

#60—a special synthetic disc highly resistant to gasoline, oils and many acids and alkalies.

★ Two Piece Union Bonnet
—Quick, easy disassembly
—No sliding or scraping between body and bonnet—NO WEAR

★ Radial Seat of Two Piece Union Bonnet
—Leak-proof Body Bonnet Joint
—Rigid alignment of all parts—guaranteed perfect seating all the time.

DART UNION

★ Ground Ball Joint having extra wide seating surfaces

★ Two Bronze Seats, non-corroding, on both sides of the seat

★ Leak-proof without excessive torque because of true bearing surfaces

★ High-test air-refined malleable iron body will not stretch, practically unbreakable.

THE **Fairbanks** COMPANY

393 LAFAYETTE STREET · NEW YORK 3, N. Y.

Branches:

New York 3 • Pittsburgh 25 • Boston 10 • Rome, Ga.

VALVES • DART & PIC UNIONS • TRUCKS • CASTERS

Shorts and Remnants

we had also better mention a fine news release and book on "The Textile Industry" from another one of the big books, "Business Week." They say the "textile industry spent $323 million *recently* for new plants, machinery and equipment." Only trouble is what do they mean by "recently." The figures above are for 1952 and their study covers "Purchases for 1953 and *Contemplated* purchases for 1954." Seems to us this is 1955, or do we have the wrong Marilyn Monroe Calendar?

Written Knowledge Enables Mills to Run

"I intend to continue writing under my own name. I wouldn't work for a company that restricted and curtailed knowledge that is not a mill secret. It has been through the medium of written and spoken knowledge that enables a mill to run. A mill secret is different; that should be protected."

CONTRIBUTOR

► TEXTILE INDUSTRIES was founded on interchange of operating and manufacturing information — believes it's healthy for industry. There are few secrets — very few. Sometimes, like in the case when a prominent purchasing agent for a cotton mill wanted a formula for setting job loads, TEXTILE INDUSTRIES had to advise there is no "formula" and against setting job loads in one mill based on practices in another, because conditions, requirements, and machinery differ. Experience has shown mills losing more than gained in copying job loads.

Printing Knit Goods Circular Form

"We have had several inquiries recently regarding the printing of knit goods in circular form similar to the enclosed sample and would like any information you can give us relative to the equipment required for such work. . ."

W. M. DIENER
Manager
Spring City Bleach & Dye Works, Inc.
Spring City, Pa.

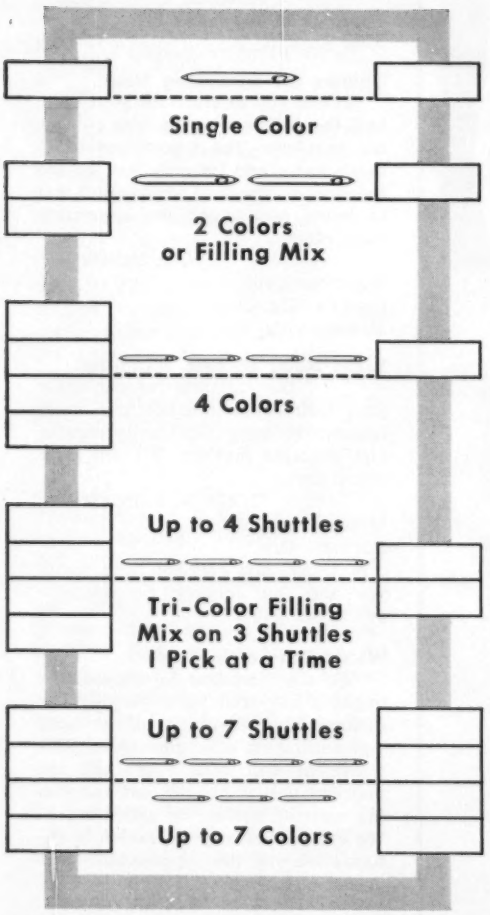
Wants Woven Labels

"We are interested in purchasing a Woven Label to be put into all of our shoes on the tongues. . . We would greatly appreciate forwarding to us Names of Concerns that you feel would be able to service and prop-

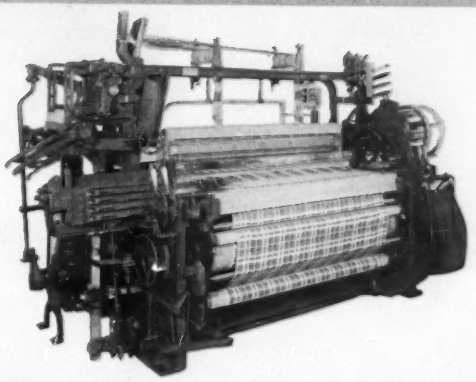
No. 5 in a series explaining

Why C&K's New Multi-Purpose Looms mean More Profit to any mill

Here are C&K's New Conceptions of *CONVERTIBILITY*



***Many of these combinations are now available. Others are on the drawing board.**



In any M-P Loom . . . C&K gives you the Most Protection against the changing whims of fashion

Why be tied to a plain 1 x 1 box loom . . . when the Most Profitable operation is in automatic box loom work? Why limit yourself with a 4 x 4 box loom, when a crepe season calls for an automatic 2 x 1 box loom? And why be saddled with a 2 x 1 box filling mixing loom . . . in a season when high fashion calls for fancy fabrics with up to 4 colors of filling for which the automatic 4 x 1 box loom is a must?

And finally, if the automatic 4 x 2 feature* is needed for Most Perfect blending of filling, this will be available in M-P Looms. Precision-built lays are readily and inexpensively convertible in combinations of 1 x 1, 2 x 1, 4 x 1, 4 x 2, 4 x 4 box*.

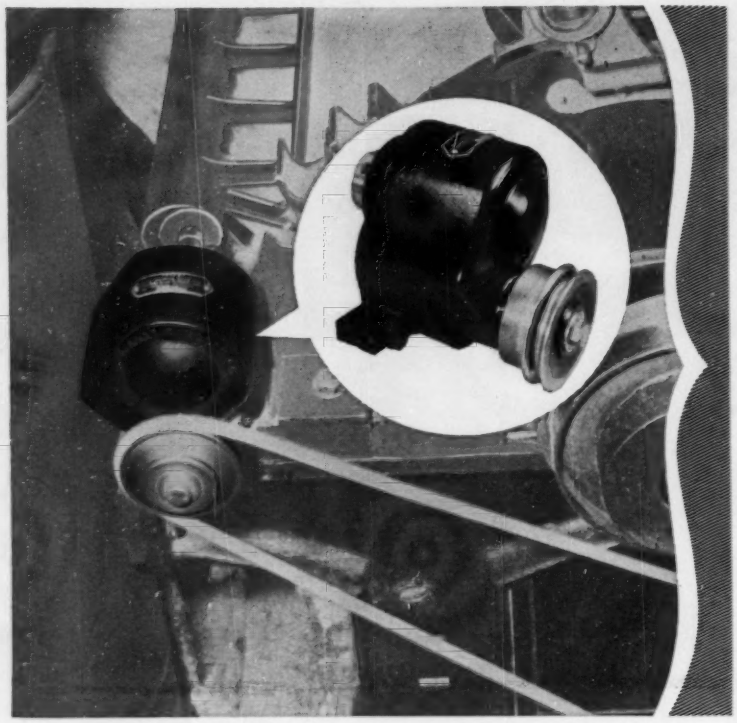
These are C&K's new conceptions of convertibility, designed with a "weather eye" out for any sudden and unpredictable market changes. And that's why . . . if you believe in insurance . . . *you'll believe in the M-P Loom.* See C&K today.

THESE NEW M-P FEATURES CONTRIBUTE→TO THESE PROFIT FACTORS

	Better Quality	Increased Work Assignments	Increased Production (Speed X Efficiency)	Lower Maintenance	Versatility
Rotary Magazine: For single color, or for multiple-color work (up to 4).	✓	✓	✓	✓	✓
Scissors Thread Cutter	✓	✓	✓	✓	✓
Vacuum Filling Control	✓	✓	✓		✓
Cone Picking		✓	✓	✓	
More Rugged Basic Frame: Common to all M-P Looms.		✓	✓	✓	✓
Letoffs: New composite type. Also other standard and special types.	✓	✓		✓	✓
Takeups: All purpose, silk, or lower winding roll.	✓				✓
Lay: Precision-built and convertible — 1x1, 2x1, 4x1, 4x2, and 4x4	✓	✓	✓	✓	✓
Shedding Mechanisms: Knowles Head — 25 Harness, 4/10" Space Knowles Head — 20 Harness, 1/2" Space Dobby — 20 Harness, 15/32" Gauge Undercam Jacquard	✓	✓	✓	✓	✓
Feelers: As required.	✓	✓	✓		✓
Driving & Shipping	✓	✓	✓	✓	

PRECISION, STRENGTH, SIMPLICITY Throughout Every M-P Loom

Crompton & Knowles
LOOM WORKS
WORCESTER 1, MASSACHUSETTS, U. S. A.
Charlotte, N. C. · Philadelphia, Pa. · Allentown, Pa.
Crompton & Knowles Jacquard & Supply Co., Providence, R. I.
Crompton & Knowles of Canada Limited, Montreal, Quebec



OUTSTANDING SUPERIORITY OF SOUTHERN STATES COMB BOXES PROVED IN NATION'S MILLS

More than 30,000 Southern States Comb Boxes have been placed in service during the past 7 years—equal to 35% of all the nation's cotton cards. Many mills have changed over 100%.

This overwhelming acceptance proves conclusively that mills can easily justify the small investment. Cardroom overseers quickly recognize the savings that result from their use: no oiling, cleaning or maintenance for the life of the unit; steady, even strokes to drive the comb with perfection; elimination of hot-running, leaky, rattling old-style boxes and their headaches.

Southern States Comb Boxes are furnished complete with an adjuster base for mounting on any make of cotton card. Bases are double tapped to permit rapid mounting on either right or left hand cards. Installation is quick and easy.

Let us show you with facts and figures how it has paid hundreds of mills to install Southern States ball-bearing, sealed-for-life, Comb Boxes; prove how much they will save you in one year. Write direct for a representative to call at your convenience.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

Shorts and Remnants

erly take care of our needs along these lines. . ."

D. N. PETERMAN
D. S. Peterman & Co.
York, Pa.

Impressed and Pleased

". . . Our client, Schwarzenbach Huber, is quite impressed by the story 'Man in White Suit,' January 1955 and we, naturally, are very pleased."

JEROME CAMPBELL
Charles Mathieu & Co.
New York, N. Y.

Thanks for Bleaching Help

"Thank you so much for your note, and the information on our bleaching problems. The report was of so much value and interest that we are indebted to you, and we do want you to know how much we appreciate your efforts. . ."

W. P. NORRED
Superintendent
Opelika Mfg. Corp.
Hawkinsville, Ga.

Likes News Release Handling

" . . . Our clipping records show your publication handled our news releases in an exceptionally careful and accurate manner. We are most appreciative. . ."

JOHN B. FERGISON
Hyster Company
Portland, Ore.

► Okay, Mr. Fergison, and thank you and Dar Johnson for the nice ads in our pages.

Wants Data on Latexes*

"We are intending to expand and improve our treating department to include latex treatment of webbing and belting on a volume basis. The treatment will consist of both the impregnation or primer coat and also the wearing surface or skin coat. . . We are particularly interested in information on the application and drying of the latex."

H. W. WOLLENBERG
Engineer
Buffalo Weaving & Belting Co.
Buffalo, N. Y.

*Or is it Latices? According to Mr. Webster, either is correct.

"Textile Industries" Gets Inquiries

"Thank you for placing our new development announcement on the Heanium Tension Fingers. Because of

this insertion we have had many more inquiries for this tension unit which can be credited to your publication."

A. C. PIEPER
Heany Industrial Ceramic Corp.
New Haven 3, Conn.

Quality Seamless Nylons

" . . . Kindly advise whether you have had any inquiries as to the identity of the mill referred to by the article ["88% of Their Seamless Nylons Are First Quality." Aug. '54] . . . "

C. J. DEITZ
Secretary
Belmont Knitting Co.
Belmont, N. C.

►Anyone want to know how to get 88% first quality on nylon 400's?

► Before closing, if any readers have bound volumes of TEXTILE INDUSTRIES they want to sell, let us know which years and the price. A book firm in Holland wants sets.

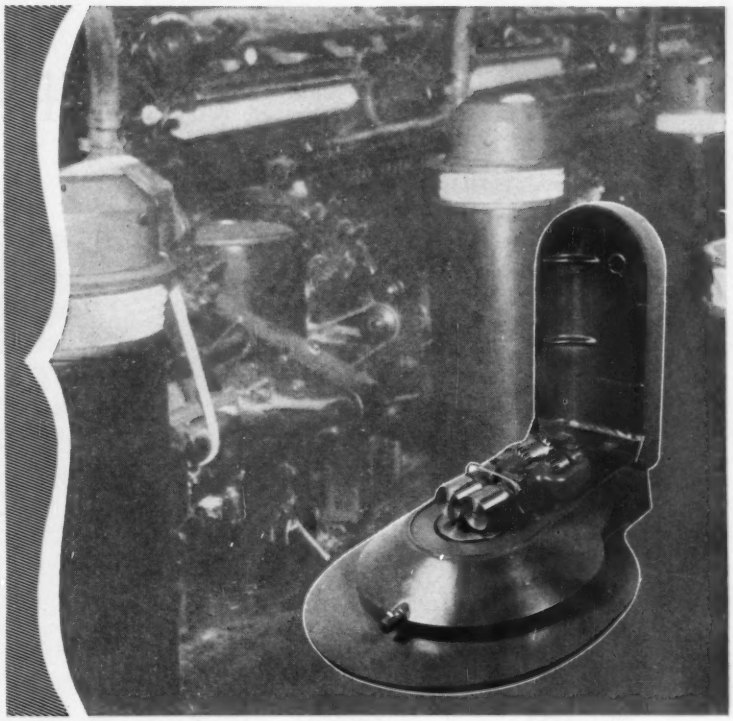
If any advertiser wants representation in West Germany, he might write MAGNATEX — Martin Hauck, Postfach 94, Karlsruhe, who is a machinery manufacturer but says ". . . I am interested to import first-class American inventions, novelties, etc., for the textile machinery business in Germany or to arrange manufacturing on a license basis."

► **P. Gough,** Peerless Silk Mills Pty. Ltd., Brunswick, Victoria, Australia, sending in booklet requests, wants them badly enough to ask for them Air Mail, offering to defray costs. However, another request in the same mail from Heidelberg, Germany, didn't seem to want them so badly — forgot to sign his name.

► A former South Carolina textile operative, who ran afoul of the Long Arm of the Law, ends up as a loom fixer in a prison mill and wants a copy of "Draper Loom Fixing." Says "I hope to come out of here soon." By the front gate, we hope.

► A reader sends in a news clipping about the Department of Commerce proposing to standardize women's sizes. Seems they are serious and have measured 10,000 women in their study. Think of that . . . 10,000 women . . . What won't the Republicans try next?

► We get all kinds of news items and pictures on the Maid of Cotton visiting here and there, but what old S & R is waiting for is some cheese cake — maybe a picture of De Lois in a cotton bathing suit. This column needs some brightening up.



SOUTHERN STATES COILER HEADS MAKE CONVERSION TO LARGER CANS A SELF-PAYING PROPOSITION

Every mill man with an eye for ways to cut card room operating costs knows the advantages of larger cans. But what some don't realize is that Southern States conversions are so economical that they pay for themselves—a fact proved by case histories of mills throughout the country.

The Southern States Universal Coiler Head, illustrated above, is designed for either 14- or 15-inch cans. It is adaptable to any make of coiler. Using this head, intermediate gearing, coiler base and *your existing stand*, an inexpensive installation can be made in your mill.

Then you can enjoy all of these advantages: simplified oiling; ease of maintenance; smaller parts inventory; more efficient handling; lower operating costs; and improved quality. The photograph shows the simplified design of this head. Notice the streamlined cover and bonnet. Cut tooth gears and oilite bearings are used throughout. It is precision built for years of satisfactory service.

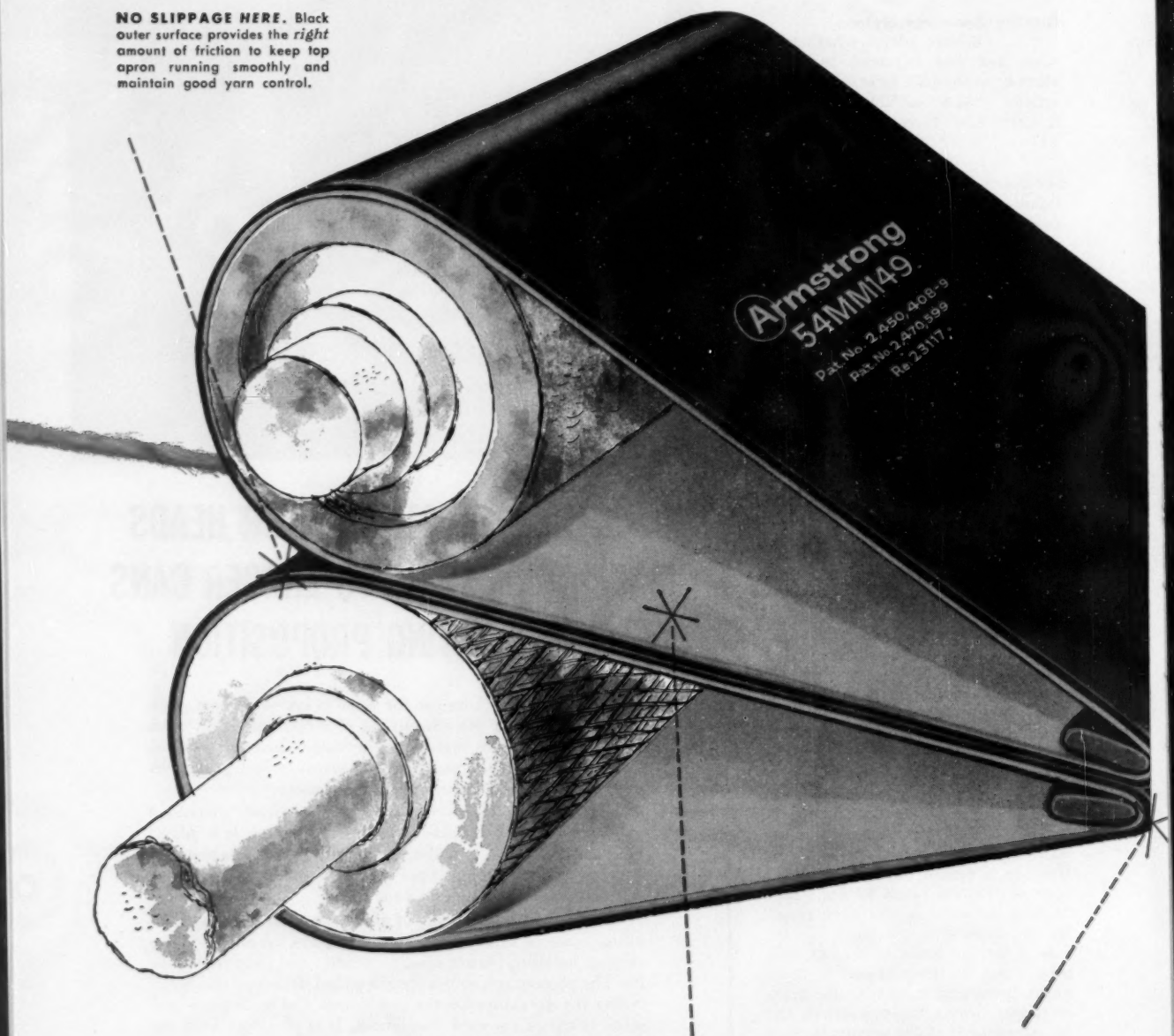
Get full facts from your Southern States representative, or send your request direct to the home office for a quick reply.

SOUTHERN STATES
EQUIPMENT CORP.
HAMPTON, GEORGIA

For further information use Handy Return Card, Page 171

This specially designed

NO SLIPPAGE *HERE.* Black outer surface provides the *right* amount of friction to keep top apron running smoothly and maintain good yarn control.



RUNS CLEANER *HERE.* White inner face won't attract loose fibers, helps prevent formation of hard-to-clean deposits on the inside of the apron.

RUNS SMOOTHER *HERE.* Controlled surface friction of inner face permits smooth transfer of power from driving roll to apron—yet prevents buckling.

two-surface apron gives

good yarn control on double-apron frames

Armstrong NO-7075 Accotex® Apron spins clean, uniform yarn month after month

Here are two important points to remember when you're choosing aprons for your new long-draft, double-apron equipment. The apron's outer surface has to provide just the right amount of friction to drive the top apron without slipping, yet maintain good drafting tension on the roving. The inner surface must grip the drive roll firmly for sure transfer of power and still slip freely over the pin without jamming.

Armstrong NO-7075 Accotex Apron has been designed specifically to meet this double requirement. Two special, high-quality synthetic rubber compounds were developed to give the inner and outer apron surfaces the exact characteristics they need. And both rubber compounds were formulated for long, efficient service. Any mill man using the NO-7075 will tell you this black-and-white apron assures perfect yarn control even after months of day-in, day-out wear.

What's the difference between the surfaces of the NO-7075 Apron?

The inside surface—a white rubber compound—has a coefficient of friction low enough to prevent jamming or buckling at the pin, but high enough to assure a firm grip on the drive roll. This surface runs clean, too. Special electrolytes in the compound tend to repel loose fibers and prevent build-up of hard-to-clean deposits.

The outside surface—black rubber compound—provides higher friction than the inner surface. This is necessary to drive the top apron without slipping. Yet friction is not high enough to interfere with good running. This compound has high resistance to tearing and abrasion.

Try NO-7075 Accotex Aprons yourself. A test in your mill will prove to you how well they work on double-apron frames. Ask your Armstrong man to set up a test frame or write direct to Armstrong. And for the free booklet, "Armstrong Textile Roll Coverings and Mill Supplies," write Armstrong Cork Company, Industrial Division, 6403 Ivy Street, Lancaster, Pennsylvania.

FOR SINGLE-APRON SPINNING, use super-flexible Armstrong NO-750 Apron. This long-wearing apron is specially made to give the smooth slip-roll action needed for strong, uniform yarn. NO-750's satin-smooth surface lasts for years without cracking, breaking, or scuffing.

Armstrong ACCOTEX APRONS

. . . used wherever performance counts

. . . From SPARTANBURG, S. C.

CDF

TEXTILE NEWS

RUNNING SYNTHETICS? A rolled fibre top rim eliminates static charge. Fibre is turned over on itself two and one half times, giving high rim strength plus positive smoothness. No snagging, no injured material.

DIAMOND FIBRE ROVING CANS

Strong, tough, smooth. Interior has a porcelain-like surface which will not crack, chip or soften; finished with a moisture-resistant synthetic enamel. Steel top rim is rust-resistant plated, smooth, snugly fitted. Also furnished with a wire-reinforced turned fibre rim for smooth entrance and exit of material. C-D-F Diamond Vulcanized Fibre Roving Cans give you smooth, seamless uniformity and lightweight, offer long-lasting service and economy. Look for the famous blue and yellow Diamond Fibre emblem.

Standard sizes are stocked for immediate shipment. Because C-D-F is one of the leading fibre manufacturers in the world, special sizes or designs can be produced economically.

Write now for new folder showing complete C-D-F receptacles line! Or talk over your special materials handling problems with an expert . . . your C-D-F sales engineer.

ALL PRODUCTS OF

Continental-Diamond Fibre Company

NEWARK 55, DELAWARE

. . . with Textile Headquarters at 834 Haynes Street, Spartanburg, South Carolina.

Call Spartanburg 3-6397 for DILECTO and DIAMOND FIBRE materials handling equipment . . . trucks, boxes . . . loom parts . . . top-speed shipments of CELORON silent gear blanks . . . friendly service from your C-D-F sales engineer.

Personal NOTES

ABOUT MEN YOU KNOW

Stephen A. Bundy, superintendent of Burlington Mills Corp.'s Hillcrest throwing plant, High Point, N. C., was recently named superintendent of Burlington's new hosiery plant currently under construction in Franklin, N. C. * * * **Alvin H. Ballard,** assistant superintendent at the company's Lexington, N. C., throwing plant for the past two years, replaced Mr. Bundy at Hillcrest.

Amerotron Corp. has announced **L. R. "Buck" Burgess** as new head of the technical department of the rayon, acetate, and synthetic fabrics division. Mr. Buck was formerly head of the styling and technical department of Rutger Textiles, Inc., and has served with Cone Mills Corp., Greensboro, N. C., in a technical capacity.

Morgan S. Cantey, who has served as a legal counsel for West Point

Mr. Cantey *upper left*

Mr. Henderson *upper right*

Mr. Conant *left*

(Ga.) Manufacturing Co. for the past eight years, was recently elected secretary of the company, succeeding **Edgar L. Henderson.** Mr. Henderson continues to serve as controller of West Point and its subsidiaries. * * * **Richard G. Conant** retired December 31, 1954, after 29 years with Wellington Sears Company, sales organization for West Point. Mr. Conant continues on the West Point board of directors.

R. G. Carson, Jr., formerly associate professor of textiles at Clemson (S. C.) Agricultural College, School of Textiles, has assumed the position of professor of industrial engineering and head of the Department of Industrial Engineering at N. C. State College, Raleigh, N. C.

S. M. Cauble is new assistant to the general manager of the Valdese (N. C.) Mfg. Co. He resigned as superintendent for Acme Spinning Co., Belmont, N. C., to accept this position.

Ernest N. Chamberlain was recently elected vice-president in charge of all operations, including sales and manufacturing, of Botany Mills, Inc., Passiac, N. J. Mr. Chamberlain served as executive vice-president of Goodall Sanford, Inc., Sandford, Me., and its subsidiaries prior to his appointment as treasurer and controller of Botany Mills in November of last year.

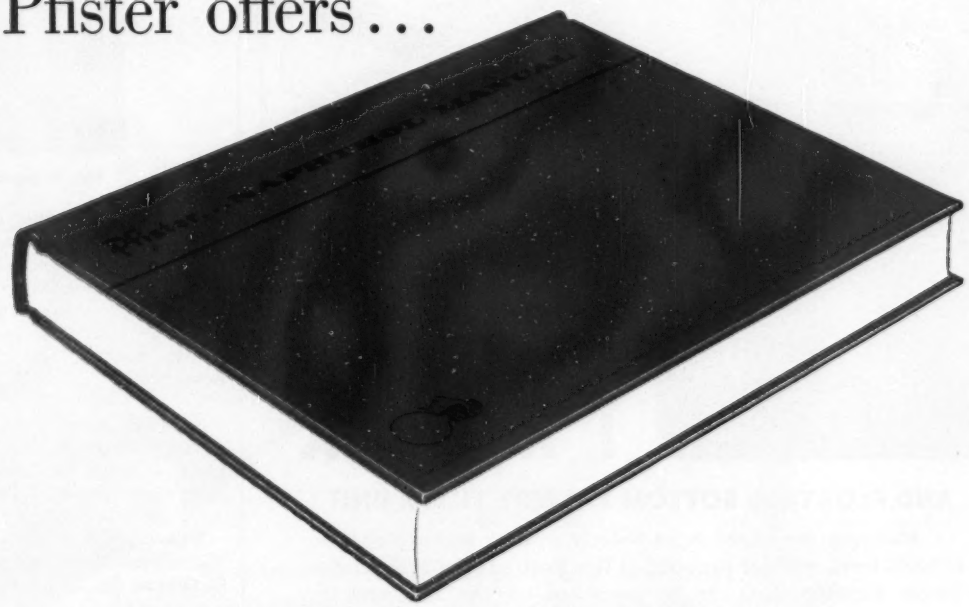
M. Lowenstein & Sons have named **Everett C. Drake** vice-president and director of all their cotton mills. Serving the firm since 1938, Mr. Drake is currently in charge of the New York division of the firm's grey mills. He was also recently appointed vice-president and director of Wamsutta Mills, New Bedford, Mass.

P. W. Eshelman has retired as president of Wilkes Hosiery Mill Co., North Wilkesboro, N. C., after 36 years with the company which he founded in 1918, but continues to serve as a director. Management of the company has been taken over by the Hanes Hosiery Mills Co., Winston-Salem, N. C. No merger of the companies was affected. * * * New officers of the company are: **Gordon Hanes,** executive vice-president of Hanes, president and director; **Thomas McLaughlin,** vice-president; **Russell Hodges,** secretary; and **Clifford Perry,** treasurer.

Theodore A. Fournier recently resigned as plant manager of Coaticook (Quebec) Textiles, Ltd., to become manager of quality control at Verney Corp., Manchester, N. H.

Sidney Blumenthal & Co., Inc., has announced the appointments of **Valentine J. Harper** and **William M. Grosvenor, Jr.** as vice-presidents of the company. Mr. Harper is the director of sales for furniture fabrics, and has been with the company over 25 years. Mr. Grosvenor is in charge of research and fabric development, and

After years of experimentation, research and collation, Pfister offers...

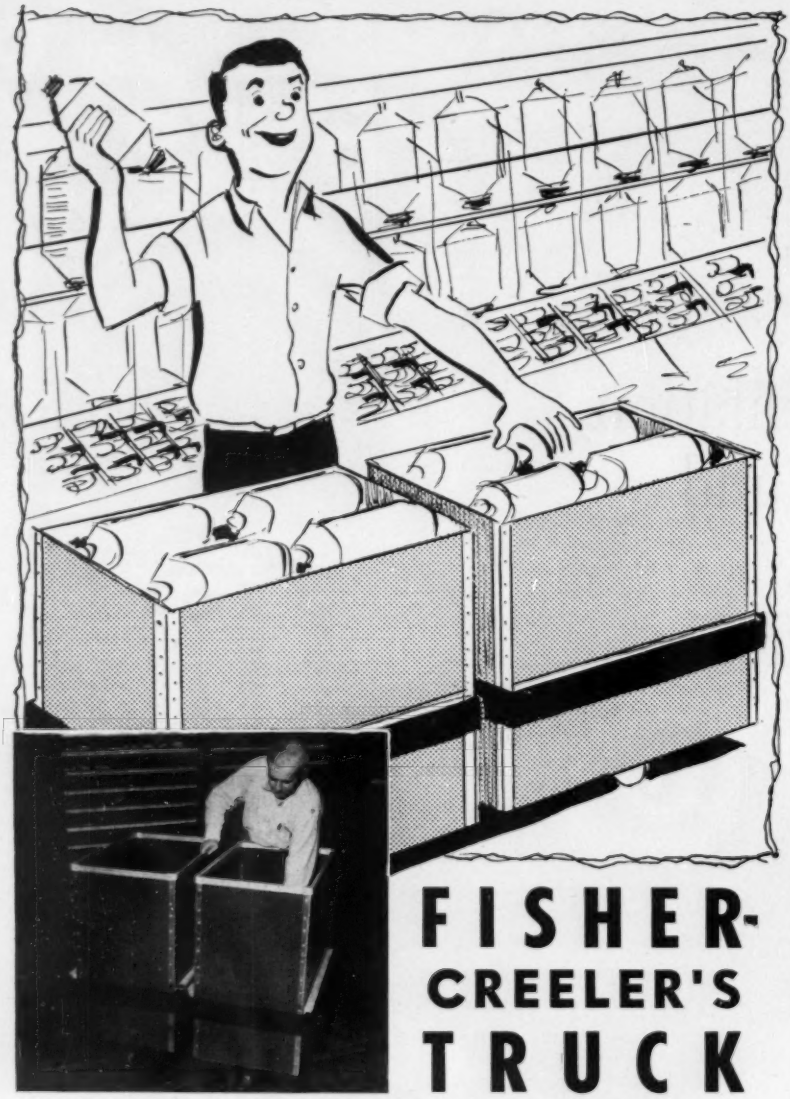


The Most Complete, Up-to-Date NAPHTHOL MANUAL

Here is a thorough, authoritative reference for textile dyeing and printing applications of Naphthols. Extensive coverage is given to fastness properties, formulae and research data. This practical, working handbook of more than 110 pages, includes information on 31 Naphthols and all of the most important fast color Salts and Bases. We will be pleased to present a copy of this handsomely bound manual to you, without obligation. Please make your request on your company's letterhead.

Pfister Chemical Works INC.

Box 326, Ridgefield, New Jersey



FISHER-CREELER'S TRUCK

AND FLOATING BOTTOM BATTERY FILLER UNIT

Packages are stored in an orderly manner and are always at hand level, without stooping, in this floating bottom Creeler's Truck. Flexible units can be connected side by side, end to end, or doffed into individually depending on width of the roving frame alley and the number of packages per doff. Patents pending on these features.

Representatives **Carolina Supply Co., 35 W. Court St., Greenville, S. C.**
Textile Specialty Co., Box 1297, Greensboro, N. C.
J. W. Davis, 122 Dillingham St., Columbus, Ga.
Thos. A. Davis, 412 Swift Bldg., Columbus, Ga.

FISHER MANUFACTURING CO.
MATERIALS HANDLING EQUIPMENT. TEXTILE
BOX 244 -- HARTWELL, GEORGIA

Personal NOTES ABOUT MEN YOU KNOW

has been associated with the company since 1937. * * * **A. C. Hedgepeth** has been appointed technical division director, with offices at Rocky Mount, N. C. He was previously head of quality control. * * * **Ferd Bray** is now design department director at Rocky Mount. Mr. Bray was head of the woolen and worsted division of Cohn, Hall Marx Co. from 1944 to 1949 and later was associated with Holyoke Fabrics as vice-president and general manager.

Gilbert E. Goheen, formerly director of research and development of the J. T. Baker Chemical Co., has

Mr. Goheen

recently joined the staff of the Southern Utilization Research Branch of the U.S.D.A. Agricultural Research Service as assistant chief of the Branch. Dr. Goheen will assist in the planning and direction of the research program of the Southern Branch.

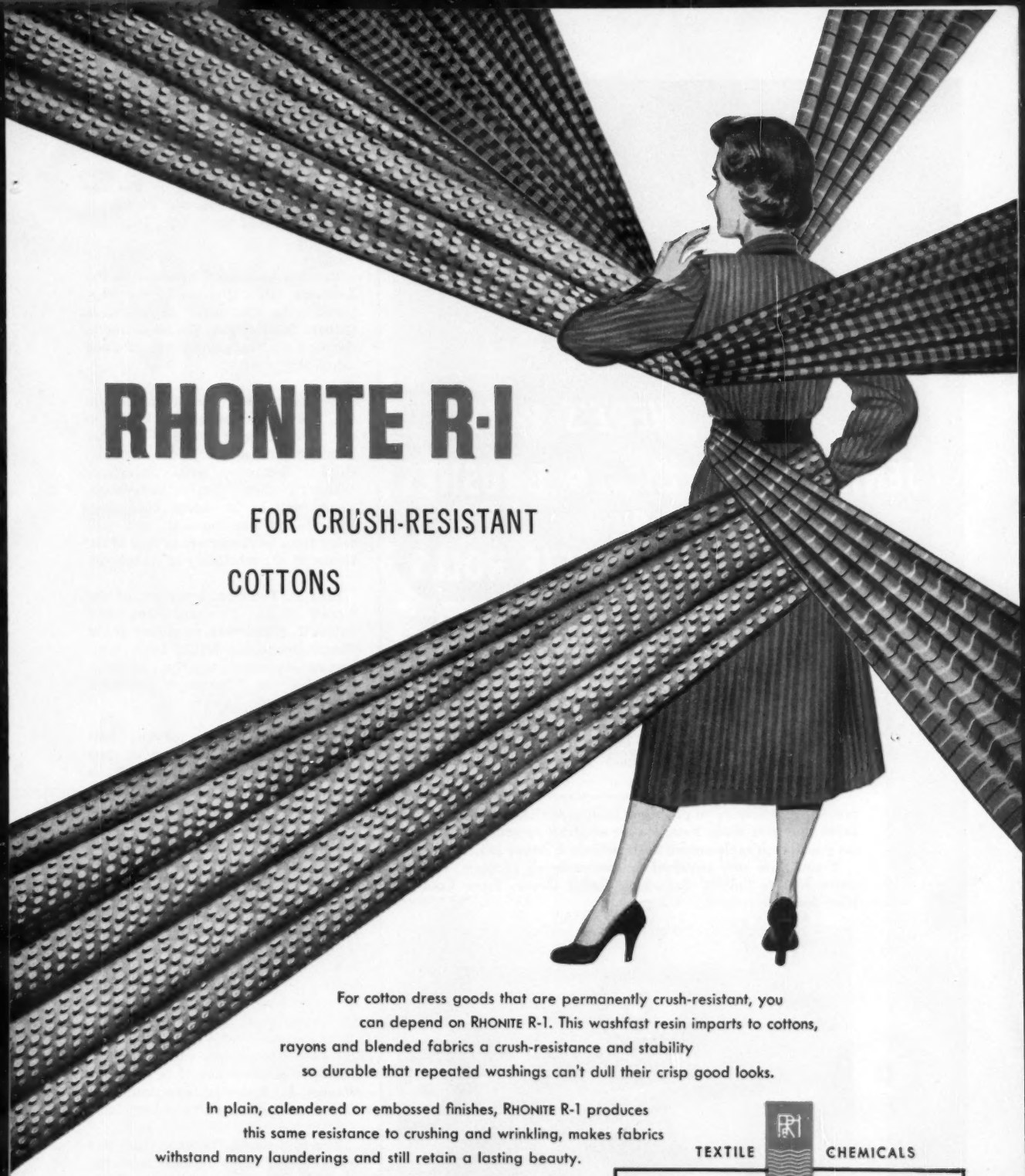
New vice-presidents at Mooresville (N. C.) Mills are **W. Basil Hill,** former plant manager at Abbeville (S. C.) Mills Corp.; and **W. J. Fullerton.**

Wilkes Hosiery Mills Co., North Wilkesboro, N. C., has named **James E. Gibson, Jr.,** assistant treasurer.

New plant superintendent at Pontiac Weaving Corp., Pawtucket, R. I., is **Peter Hart,** formerly with Raycrest Mills, Inc.

Fred B. Hirsch who for some years has been treasurer of Dodgeville (Mass.) Finishing Co., is now also general manager, succeeding Frank Diedrick, resigned.

Burlington Mills Corp., Greensboro, N. C., has added **W. C. Harris** to its staff as vice-president in a sales coordination capacity. He will maintain headquarters in the company's



RHONITE R-I

FOR CRUSH-RESISTANT COTTONS

For cotton dress goods that are permanently crush-resistant, you can depend on RHONITE R-1. This washfast resin imparts to cottons, rayons and blended fabrics a crush-resistance and stability so durable that repeated washings can't dull their crisp good looks.

In plain, calendered or embossed finishes, RHONITE R-1 produces this same resistance to crushing and wrinkling, makes fabrics withstand many launderings and still retain a lasting beauty.

For unusual crush-resistance, it pays to use RHONITE R-1.

Write or call for complete information about RHONITE R-1—one of the quality chemicals for textile finishing made by Rohm & Haas Company.

TEXTILE CHEMICALS

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

RHONITE is a trademark, Reg. U.S. Pat. Off. and in principal foreign countries.

HERE'S WHY

JENKINS' METLKOR BRUSHES

are on

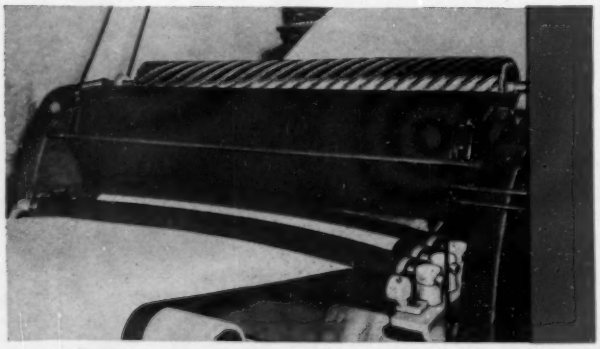
JAMES HUNTER SQUEEZE ROLLS

James Hunter Machine Co., North Adams, Mass., wanted a brush to stand up when removing acidified flock from their Carbonizer Squeeze Rolls. Jenkins' engineers designed a METLKOR brush with exposed metal parts of stainless steel and bristle of acid-resistant Nylon.

Mr. Frank B. Morrill, Chief Engineer, James Hunter Machine Co., says: *". . . we have been using Jenkins' brushes for flock removal on our Squeeze Rolls for about three years . . . They do a much better cleaning job than the brush previously used, and stand up several times longer . . ."*

This top textile machinery manufacturer has time-tested and proven the efficiency of patented Jenkins' METLKOR—the cylinder brush that lasts *many times longer* and *can be rebristled!* It can cut your brush replacement costs and do a better job, too.

If you have any standard or special brush problem, call or write: M. W. Jenkins' Sons Inc., Cedar Grove, Essex County, New Jersey.



A JAMES HUNTER CARBONIZER SQUEEZE ROLL WITH A JENKINS' METLKOR NYLON BRUSH

M. W. JENKINS' SONS, INC.

Over Three-Quarters'Century of Pioneering Brushes for Industry.

Cedar Grove, Essex County, New Jersey

Personal NOTES ABOUT MEN YOU KNOW

New York offices. Prior to this appointment, Mr. Harris was associated with Dan River Mills, Inc., Danville, Va.

Retiring as general manager of the Lewiston (Me.) Division of the Pepperell Mfg. Co., after 35 years, is **Gilbert D. Harrison.** His successor is **Bernard F. Brady,** formerly of Saco (Me.) Mfg. Co.

Aberfoyle Mfg. Co., Philadelphia, Pa., has elected **Aubrey A. Hobbs** to the newly-created position of vice-president and technical director. Mr. Hobbs, formerly with Standard-Coosa-Thatcher Co., Chattanooga, Tenn., will be in charge of quality control and development, and will work from headquarters at Rex Mills, Ranlo, N. C., subsidiary of Aberfoyle.

Ellis H. Peniston, president of the Arnall Mills, Newnan, Ga., and **Julian T. Hightower,** president of the Thomaston (Ga.) Mills, have been named directors to the advisory board of the Citizens & Southern National Bank, Atlanta, Ga.

C. M. Black, who for the past 40 years was associated with The Borden Mfg. Co., Goldsboro, N. C., as superintendent and since 1946 as vice-president and secretary, retired last January. **W. A. J. Peacock** is now vice-president in charge of manufacturing and standards, and **E. L. Caviness** is secretary.

Jantzen, Inc., Portland, Ore., has recently announced a number of personnel changes: **Carl C. Jantzen** is manager of the style development department; **Mayer Monroe** is director of style development and research. Mr. Jantzen has served the company for fourteen years. The position of procurement manager vacated by Mr. Jantzen's promotion will be filled by **Wayne A. Rodman,** who came to Jantzen from Glass Containers, Inc.

Standard-Coosa-Thatcher Co. has transferred **Fowler Jackson** from the Chattanooga, Tenn,, office to Piedmont, Ala., where he serves as Coosa plant engineer. Filling the vacancy of personnel supervisor for the Thatcher plant created by Mr. Jackson's promotion is **Jack Cordell,** formerly assistant purchasing agent.

E. E. Jones was recently elected

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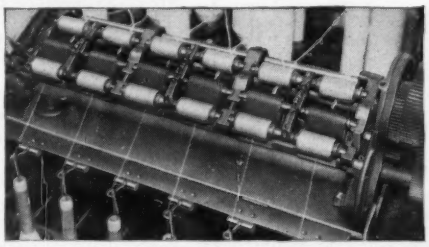
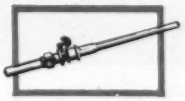
WHITIN Engineered REPLACEMENT PARTS

Beware of "substitute," "just-as-good," "make-shift" replacement parts. It is completely logical that the maker of the original part can make its replacement best! Made by the same craftsmen — with the same precision — from original drawings — Whitin Engineered Replacement Parts give you more efficiency, longer life and greater service — a sure-fire way of cutting your maintenance costs. Over 1,000,000 different items are available, many thousands being carried in stock at Whitinsville and Charlotte, N. C. to facilitate fast delivery.

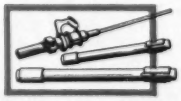


CHANGEOVERS — where Whitin Engineering <u>really</u> pays off, Long Draft to Super-Draft, increased traverse, band-to-tape

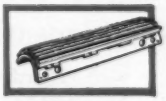
GEARS — all types, precision cut, for specific needs



WHITIN ANTI-FRICTION SPINDLES — aluminum sleeve or blade type for utmost stability

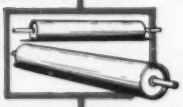


BOLSTERS — and repairs for older spindles, retopping, re-whorling, re-clutching and straightening



COMBER HALF LAPS — re-needled; replacement from stock

ROLLS — true running, accurately dimensioned, case-hardened, smooth finished



CYLINDERS — quick service on new or repaired, dynamically balanced

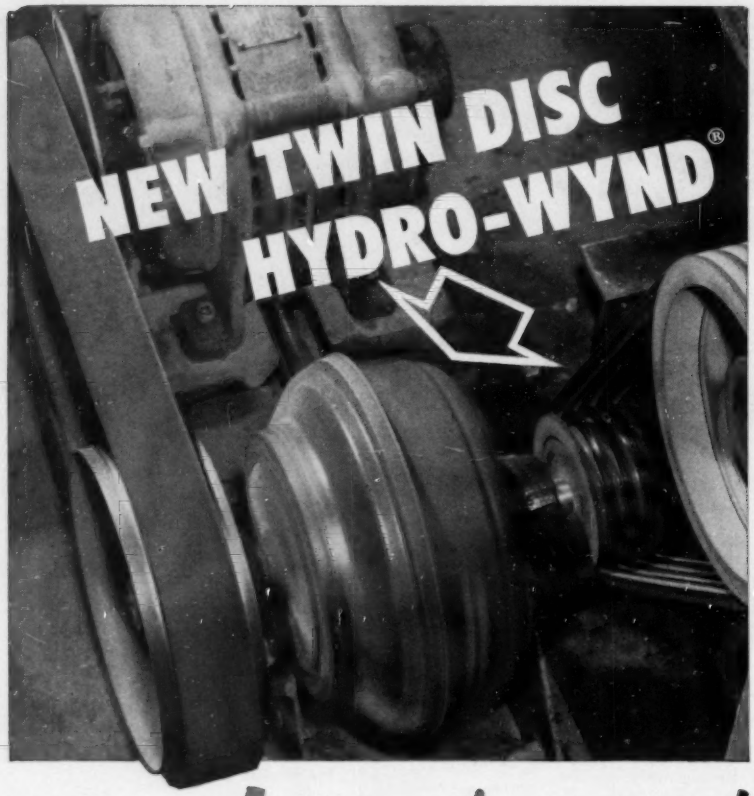
CAMS — cast iron or hardened steel, precision cut

RINGS — famous Whitin Crys-steel, full range of sizes and types

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, S. C. • DEXTER, ME.



Automatic control

for winding and tensioning, at low initial cost — without unnecessary bulk or expensive maintenance

Now available in improved design*, and in larger capacity to extend the line, the new Twin Disc Model 12.2 and 8.4 HYDRO-WYND provides a *more effective, more economical answer to automatic winding and tensioning control.*

Extremely compact — easy to install—either the 12.2 or 8.4 HYDRO-WYND combines a fluid coupling with a planetary gear set. Pre-determined tensions—once set—are maintained automatically, regardless of variations in the load demand . . . and with no further adjustments required. The result . . . *higher output per day . . . improved product quality . . .* fewer man hours required.

For complete information on the new HYDRO-WYND, call your Authorized Twin Disc Hydraulic Dealer—or write Dept. DS, Racine, Wisconsin.

*New HYDRO-WYND design features include rearrangement of gear train, better bearing spacing, and new carbon-against-steel spring-loaded seal.

TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

TWIN DISC

TWIN DISC CLUTCH COMPANY, Racine, Wisconsin • HYDRAULIC DIVISION, Rockford, Illinois

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Personal NOTES ABOUT MEN YOU KNOW

vice-president of the United States Finishing Co., Norwich, Conn. Prior to this, Mr. Jones served as manager of the Arnold Print Works Division of Aspinook Corp., Jewett City, N. J., a U. S. Finishing subsidiary. Succeeding Mr. Jones at Arnold is **J. Haines Spencer,** who has been assistant manager of this plant for 4½ years. * * * **Matthew W. Naughton** is new superintendent of coloring, printing, and developing; and **Joseph C. Merlini** is superintendent of preparatory, finishing, and service departments.

On January 4, **Francis E. Grier,** president of the Abney Mills and chairman of the board of Erwin Mills Inc., was formally installed in the South's "Hall of Fame For The Living" in ceremonies conducted before an overflow audience attending the Greenwood Chamber of Commerce annual banquet meeting. Mr. Grier received a distinguished service citation from **Col. Hubert F. Lee,** editor

Mr. Self, Mr. Grier, Col. Lee.

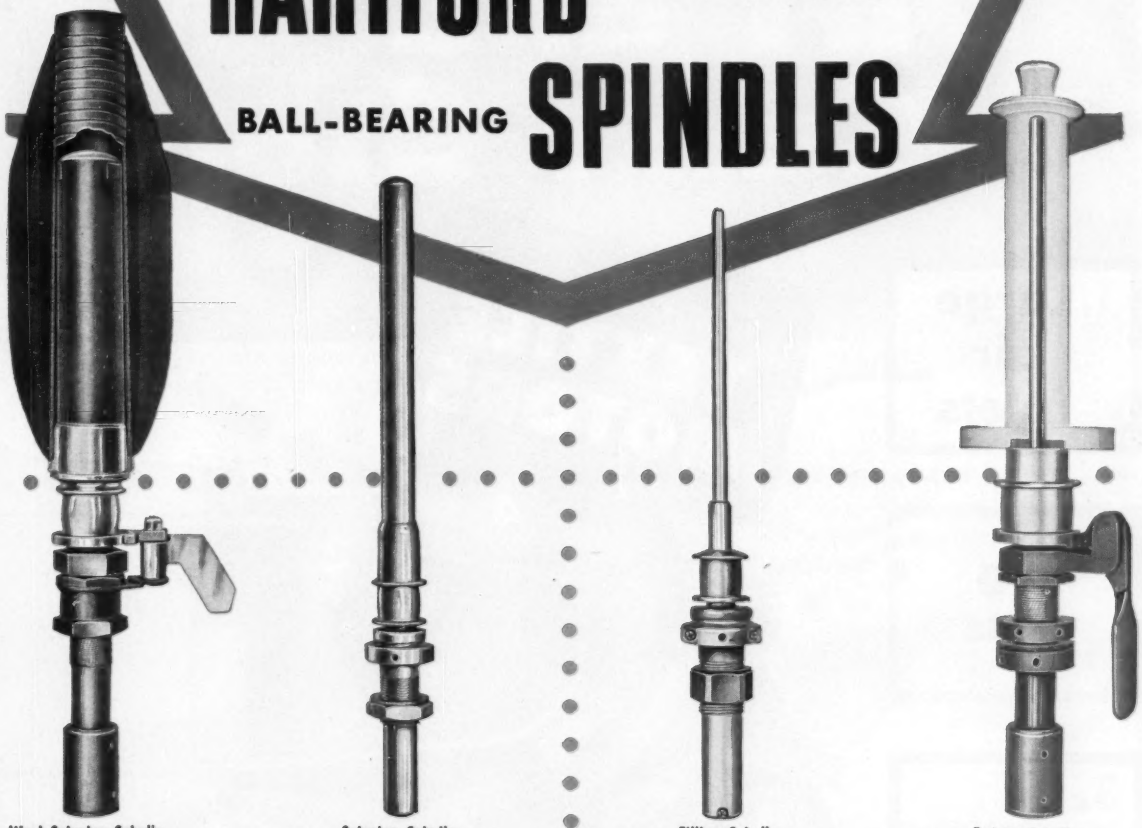
and founder of "Dixie Business Magazine" which sponsors the Hall Of Fame and Man Of The South honors. Col. Lee made the presentation remarks and the framed citation was presented by **James C. Self,** president of the Greenwood Mills and Man Of The South in 1952.

New general manager of manufacturing for Sidney Blumenthal & Co., Rocky Mount, N. C., is **Paul H. Medling,** former assistant general manager of Goodall-Sanford, Inc.

In appreciation for her service to P. H. Hanes Knitting Co., Winston-Salem, N. C., **Mrs. P. H. Hanes, Sr.,** wife of the chairman of the board, was presented with a 45-year service award. Though she has never been a

2 Approaches to Economy

HARTFORD PRE-LUBRICATED BALL-BEARING SPINDLES



Wool Spinning Spindle
With built-in eccentric plumbing — its spring clutch pads provide positive drive for large-capacity paper tubes.

Spinning Spindle
Split-Base Type.

Filling Spindle
Split-Base Type
Top Drive.

Twister Spindle
With built-in eccentric plumbing — features height adjustment of bobbin seat.

● All Hartford spindles feature two rubber-mounted ball bearings — of the pre-packed type requiring no lubrication for an estimated five years.

● These bearings eliminate an important cause of oil mist — also permit higher r.p.m. Hence you produce cleaner yarn, faster.

Hartford spindles are produced in two economical types:

1) Spindles with an exclusive, eccentric-sleeve adjustment — so they can be kept plumb. The adjusting is done while the frame is running. High production is maintained.

2) Spindles with our split-base design — which drastically reduces the first cost.

It will pay you to investigate Hartford spindles thoroughly. Simply write now for our literature that furnishes detailed technical data.

THE HARTFORD MACHINE SCREW COMPANY

HARTFORD, CONN. SOUTHERN DIV. 110 W. McBEE AVENUE, GREENVILLE

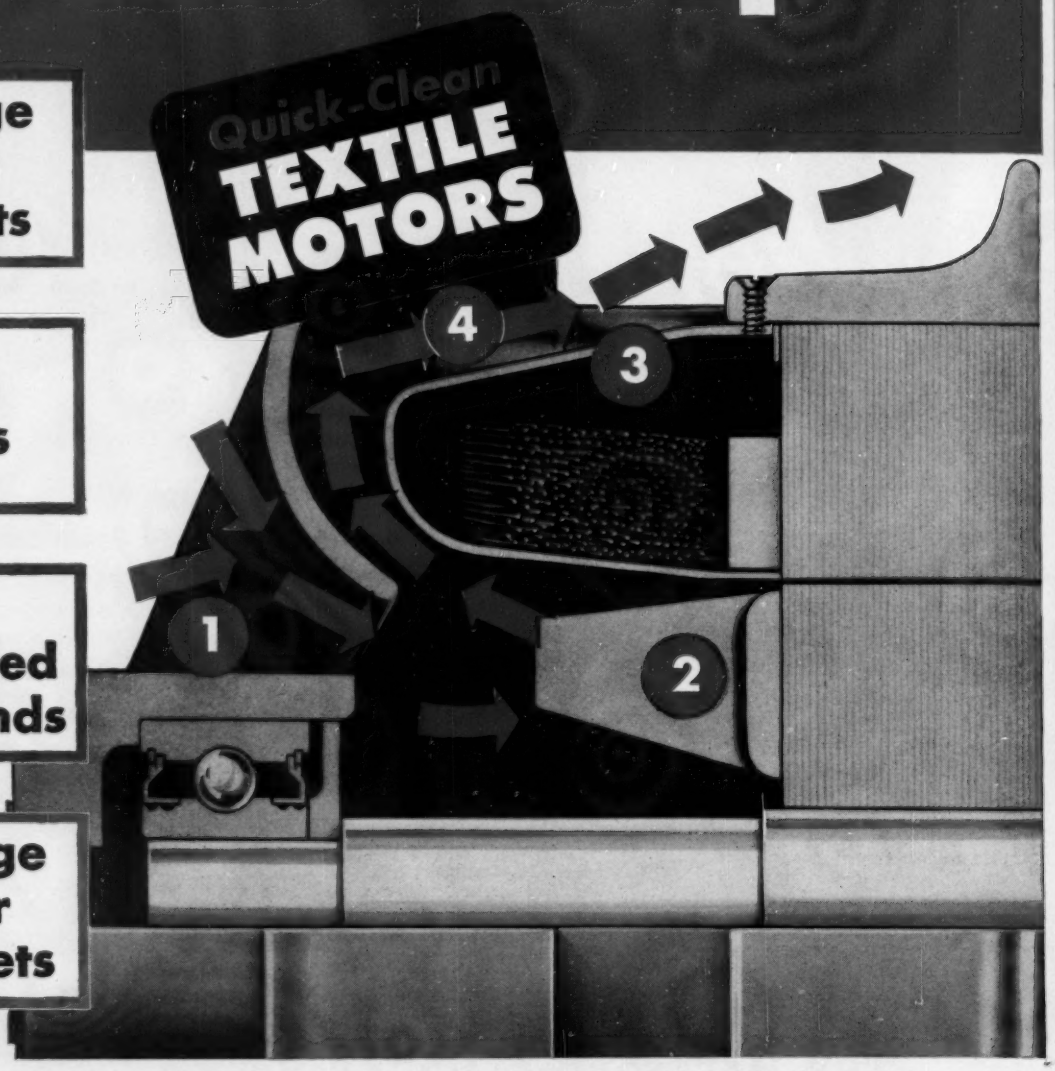
MOTORS that Dirt and Lint Can't Stop

1. Large air inlets

2. Big fans

3. Covered coil ends

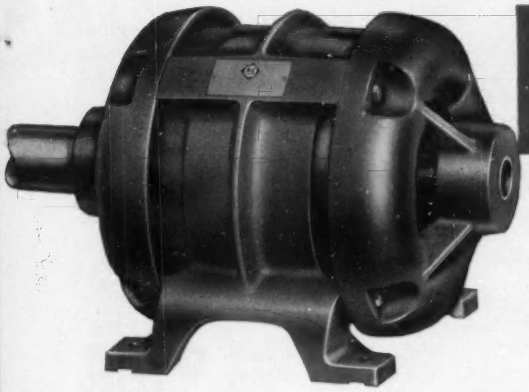
4. Large air outlets



GET COMPLETE INFORMATION: Call your nearby Allis-Chalmers District Office or distributor, or write Allis-Chalmers, Milwaukee 1, Wisconsin.

Texrope and Quick-Clean are Allis-Chalmers trademarks.

ALLIS-



Spinning

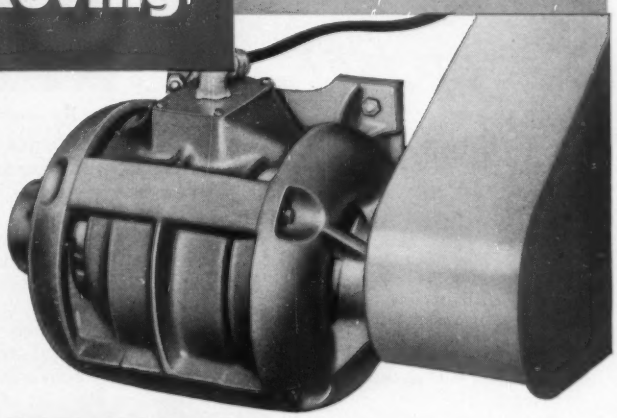
Two important features make this *Quick-Clean* motor your best buy for spinning frame duty. First, wide open design solves problems of clogging and overheating created by lint-laden atmospheres. Powerful fans sweep lint and dirt through wide open air passages and right out of the motor. Air passages are large, smooth, unobstructed.

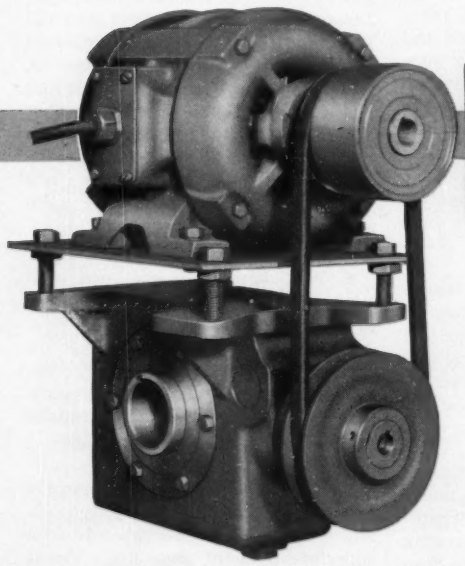
Second, pre-lubricated and sealed double-width, single-row ball bearings are used. They will operate for long periods without attention — yet can be cleaned and repacked when motor is dismantled. Will not drip grease that can damage product.

Roving

The same wide open, self-cleaning *Quick-Clean* design is used in this motor for roving frame applications. Special slow, smooth acceleration characteristics are built into the motor to provide slow starts, fine jogging — produce uniform roving.

No special resistors, no acceleration-reducing clutches, no special motor control are required with this motor. Acceleration is almost three times as long as a standard motor. Special conduit box connections permit relatively high torque when required, such as during "break-in" period of the frame.





Carding

Non-clogging, *Quick-Clean* motor is combined with a *Texrope* drive, mercury clutch and a highly efficient gear reducer to make a compact, reasonably priced power package for cards. These individual card drives solve problems of lighting, cleanliness and safety created by overhead shafting and belting. In addition, duct arrangements for air conditioning are simplified.

Unit requires practically same floor space as tight-and-loose pulley drive. It is mounted on card shaft — independent of card arch — with torque arm to keep gear box from rotating.

A-4600

CHALMERS

A-C ALLIS-CHALMERS

STOP THE THREAT OF CORROSION WITH TRUSCON SPEED REX

PROVIDES TOUGH, RESISTANT PAINT FILM FOR METAL, WOOD OR CONCRETE SURFACES!

TEXTILE manufacturers are using "Speed Rex" to lick corrosion problems caused by condensation. "Speed Rex" is the *toughest* all-purpose coating ever formulated for painting machinery, tools, conveyors, benches, guard rails and most other plant equipment.

AND "Speed Rex" resists *hard knocks* as well as moisture and chemicals. You paint less often when you standardize on "Speed Rex" because rough, tough physical abuse bounces off the rugged hide of this protective coating.

THE reason "Speed Rex" can take so much punishment is Devran . . . an Epoxy Resin that gives paint greater wear-ability and resistance to acids, alkalis and moisture.

GET full information on how to solve condensation problems and other painting problems in the textile industry. Send coupon today!

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Detroit 11, Michigan

Please send details about Speed Rex

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CITY_____ ZONE_____ STATE_____

Personal NOTES ABOUT MEN YOU KNOW

paid employee of the company, R. A. Lambertson, vice-president and treasurer, said that she had worked in conjunction with her husband since their marriage in 1909 to assist in making the company a success.

Appointment of **Dr. Edwin L. Lotz** as general manager of the Glass Fabrics Finishing Corp., Cedar Grove, N.

Dr. Lutz

J., now wholly-owned by Hess, Goldsmith & Co., was announced recently. Dr. Lotz was director of research for the Irvington Varnish and Insulation Division of the Minnesota Mining and Manufacturing Company prior to this new appointment.

G. L. McCausland has been appointed to succeed **T. M. Schramm,** who recently resigned after 15 years as resident manager of the Stead and Miller Co., Concord, N. C., a subsidiary of the Collins and Aikman Corp. Mr. McCausland was formerly manager of Stead and Miller Co.'s plant at Dowington, Pa.

Lamar Moore has become superintendent of the Julia Cade Mills, Inc., Albertville, Ala.

The National Association of Manufacturers has appointed **Thomas O. Moore,** vice-president and general counsel of P. H. Hanes Knitting Co., Winston-Salem, N. C., a director at large and also chairman of their Industrial Relations Committee.

Paul A. Redmond, Jr., of Birmingham, Ala., has been elected a member of the Young Presidents' Organization, a national group numbering more than 750 who became top executives before reaching the age of 39. Mr. Redmond was made president of Anchor Rome (Ga.) Mills, Inc., in 1947 at the age of 32.

Newly elected secretary of the Washington Mills Co., Winston-Salem, N. C., is **Lawrence G. Reid,** who has held the position of assistant secretary for the past three years.

Mojud Company, New York, N. Y., has announced the promotion of **Richard C. Remmey** to president. He succeeds **John K. Voehringer, Jr.,** who recently retired. Mr. Remmey has been vice-president and a member of the board of directors of the company for many years.

Riegel Textile Corp. has announced the election of **German H. H. Emory** as vice-chairman of the board and **William E. Reid** as president of the corporation. Mr. Emory, who was president of the corporation, remains active in all its operations. Mr. Reid came with the company in 1939 as superintendent of the firm's finishing plant at Trion, Ga., and was made executive vice-president in 1953.

E. L. Reece has retired as assistant overseer of the warp spinning department at White Oak Plant, Cone Mills Corp., Greensboro, N. C.

R. C. Thatcher has retired from active duty with Standard-Coosa-Thatcher Co., but will continue as board chairman.

Fulton Bag and Cotton Mills, Atlanta, Ga., has elected four new members to the board of directors: **James D. Robinson** of First National Bank of Atlanta; **William E. Mitchell** of Atlantic Realty Co.; **Robert O. Arnold** of Covington (Ga.) Mills; and **Herbert R. Elsas** of Southerland, Asbill, and Brennan. Manager of the company's Dallas plant, **Frederic G. Barnet,** and manager of the New York office, **E. Monroe Hornsby,** were elected vice-presidents.

E. W. Schenk who has been with Ripon (Wis.) Knitting Works, as vice-president and treasurer is now vice-president and general manager of the subsidiary company, Portage (Wis.) Hosiery Co. The former company has ceased knitting operations and moved machinery to Portage.

William Schmottlach, formerly superintendent of dyeing at Goodall-Sanford, Inc., Sanford, Me., is now superintendent of dyeing at Great Falls Bleachery & Dye Works, Somersworth, N. H.

James A. Stevenson, vice-president of the Bradford (R. I.) Dyeing Association, has become vice-president

Try this in your mill for 90 days!

THE NEW Johnson Syphon Elbow AND THE NEW Johnson Joint

Learn why so many thousands of these new mechanical syphon elbows have already been installed. See right in your own mill how they team up with Johnson Joints to end many of the troubles of ordinary syphon drainage pipes. We'll gladly supply a couple of these combinations for a 90-day trial, and even prepay the shipping charges if you wish. There are no strings to this offer, no obligation to you.

Johnson Syphon Elbows are available in 1/8", 3/8", 1/2", 3/4" and 1" sizes. Johnson Joints available in three types shown below. To get full information write, wire or phone us right now.

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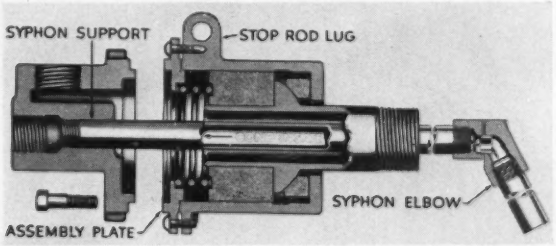
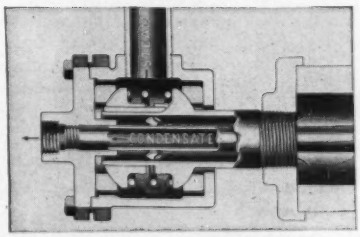
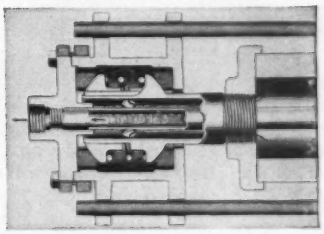


PIPE SUPPORTED



ROD SUPPORTED



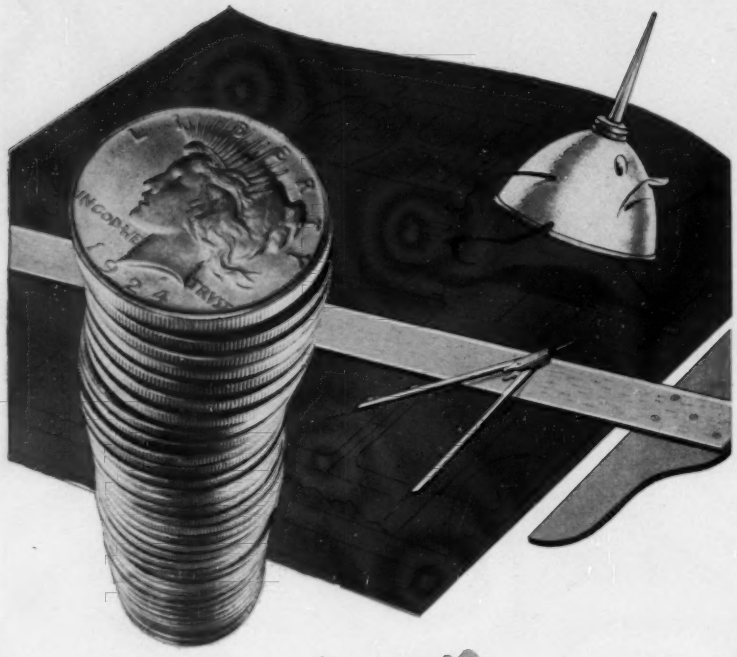
Johnson Rotary Pressure Joints — 3 types answer all needs

Johnson Joints make a pefect combination with the new syphon elbow. They are completely packless, self-lubricating and self-adjusting. For this service a special assembly plate is provided to hold internal parts in position when head is removed; complete syphon pipe, including the new elbow, can be removed right through the joint, in many cases while the machine is operating. Picture above shows the complete combination; the other two do not show assembly plates or syphon elbows.

Products of The Johnson Corporation

815 WOOD ST., THREE RIVERS, MICH.

Rotary Pressure Joints • Compressed Air Separators and Aftercoolers
Direct Operated Solenoid Valves • "Instant" Steam Water Heaters



Profit Grows When The Oil Can Goes!

BIJUR

Automatic Lubrication

You profit many ways when your machines are equipped with Automatic Lubrication, either built into new units or adapted to installed equipment. Costly hand oiling is eliminated. Repair bills are substantially reduced. Productive capacity is increased because machines are lubricated while in operation; downtime is reduced. Every bearing receives the right quantity of oil at the right time. There are no starved or flooded bearings. Plant safety is substantially increased as fire risk is lessened and personnel injuries are avoided.

All this adds up to higher profits through increased production and reduced maintenance.

For more than a quarter of a century, Bijur has been the accepted standard for automatic lubrication of textile machinery. Well over a million Bijur Systems are in operation in Industry.

Let Bijur design a custom-engineered lubrication system for your equipment.

On all NEW equipment, insist on the best—insist on Bijur.

Literature and engineering data are yours for the asking

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BIJUR

LUBRICATING CORPORATION

Rochelle Park, New Jersey

Pioneers in Automatic Lubrication

Personal NOTES ABOUT MEN YOU KNOW

and plant manager of the company to succeed **John Albert Pawson** who recently retired.

Succeeding the late George H. Cornelson as vice-president of the Clinton (S. C.) Cotton Mills and Lydia Cotton Mills, Clinton, is **Robert M. Vance,** a director of both mills. * * * New industrial relations director of both mills is **Claude Crocker,** who served as personnel director of the mills from 1950 to 1952. In the interim he has been industrial relations director of Slater (S. C.) Mfg. Co. Div. of J. P. Stevens & Co., Inc.

Benjamin W. Streifler has joined Julius Kayser & Co., New York, N. Y., as president of the company's wholly-owned subsidiary, Nazareth (Pa.) Mills, Inc. Before becoming associated with the company, Mr. Streifler was vice-president of Haddon Mfg. Co., Medford, N. J.

J. L. Williams has resigned from Erwin Mills, Inc., Durham, N. C., to return to Burlington Mills Corp., Greensboro, N. C., with whom he was associated before becoming director of industrial relations for Erwin Mills. He will continue to serve the latter on a consulting basis for several months.

J. Gilbert Mohr has joined Process Development Co., Inc., Genoa, Ohio, in the capacity of general manager. Mr. Mohr was formerly quality control manager of the Libbey-Owens-

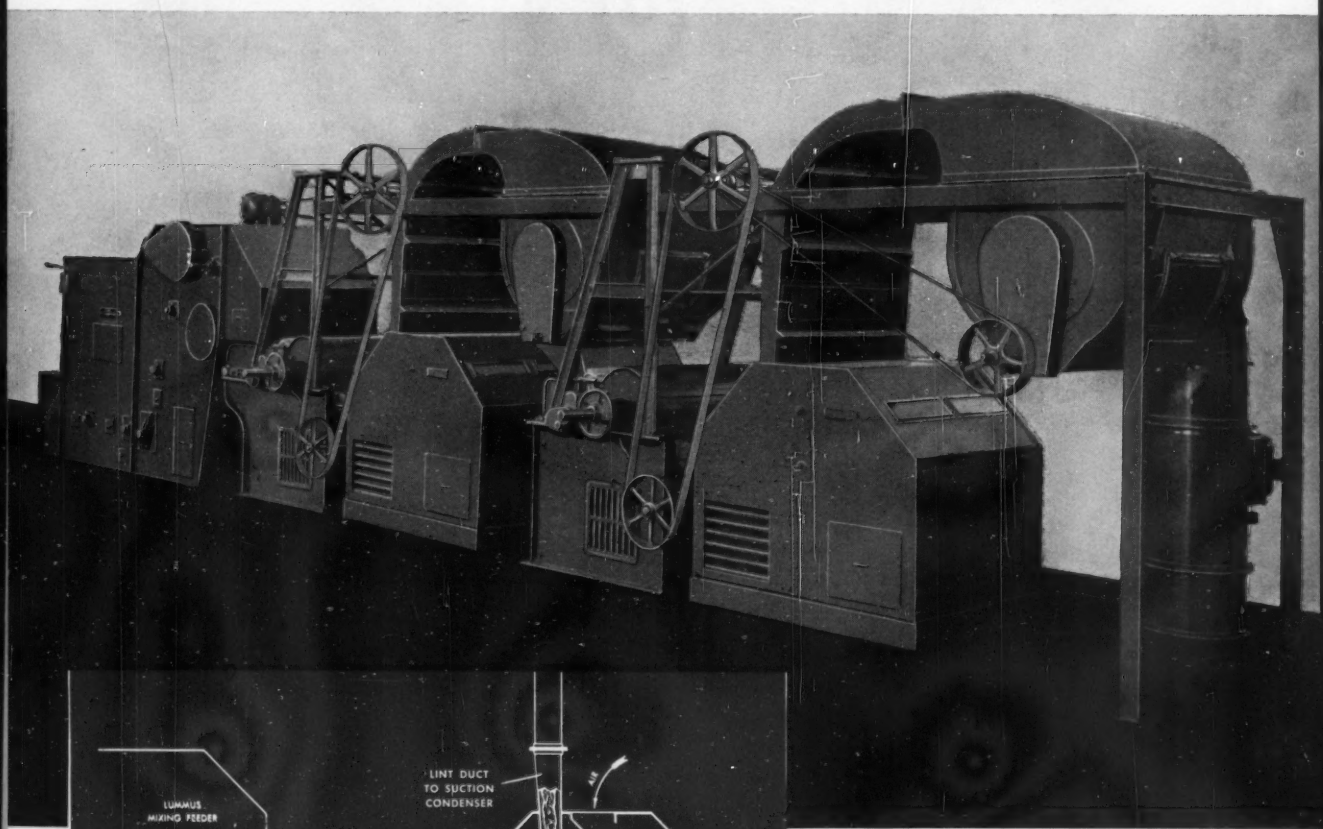
Mr. Mohr

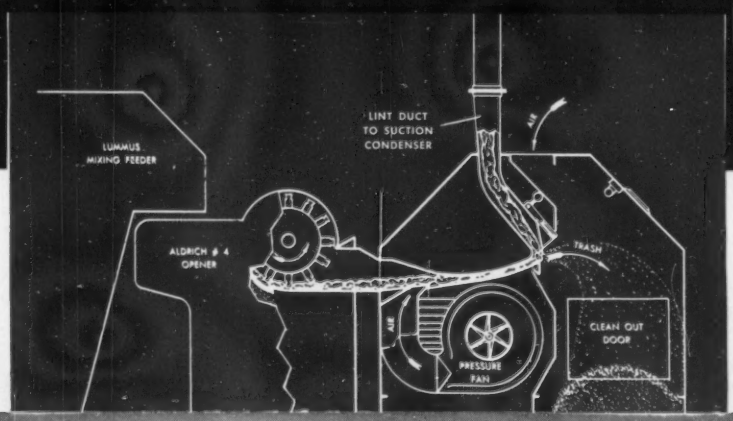
Ford Glass Co., Fiber Glass Division, Parkersburg, W. Va. * * * **H. Robinson,** formerly of the Firestone Tire and Rubber Co., Research Division, Akron, Ohio, has also recently joined the production department of Process Development.

William H. Ruffin, president of Erwin Mills, Inc., Durham, N. C., has

To clean cotton it is desirable to take trash *out whole*. Merely breaking it up so fine that it is not noticeable in the sample will not keep it from showing in the yarn.

The Super-Jet Cotton Cleaner contains no saws or pin beaters to break up the trash to make neps and pepper. It cleans with air currents, and can not injure the lint or pulverize the foreign matter.





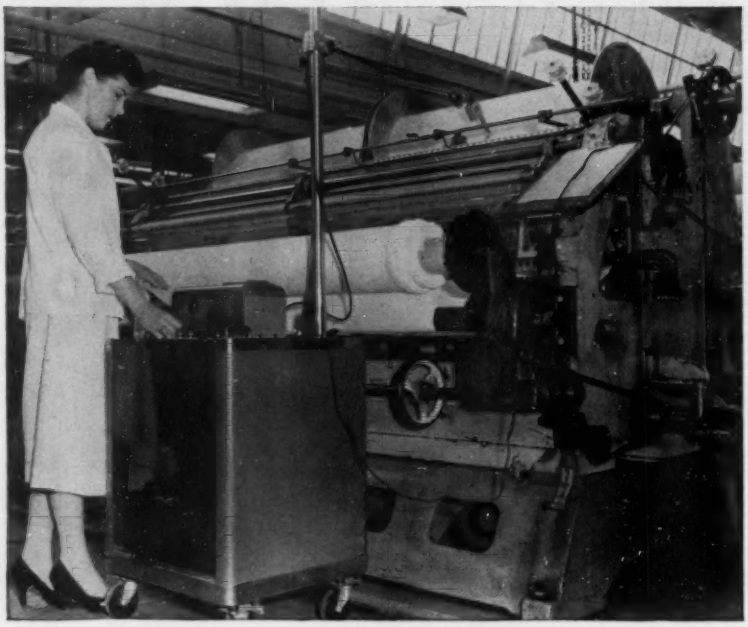
If you have not seen these machines in operation, we would like to show them to you.

ALDRICH-LUMMUS CLEANING SYSTEM

Made by **LUMMUS COTTON GIN CO.**
Columbus, Ga.
and
ALDRICH MACHINE WORKS
Greenwood, S. C.

Sold and Installed by **AldricH MachinE WorkS** Greenwood South Carolina

BRUSH TEXTILE INSTRUMENTS



Brush Tension Analyzer helps American Viscose improve textile processing

This test setup on a tricot knitting machine at Avisco's Textile Research Dept. utilizes a Brush Analyzer to measure tension on viscose dull yarn. The Analyzer measures and permanently records on graph paper both static and dynamic tensions from 1/10 to 400 grams in filamentary materials.

Mounted on casters, the unit can be used in research, or easily rolled to various production machines. It improves quality control and reduces costs by indicating trouble spots due to improper tension. For information on how Brush Textile Instruments can help *you*, contact our Southeastern Office or write Brush Electronics Company, Department T-3, 3405 Perkins Ave., Cleveland 14, Ohio.

BRUSH OFFERS COMPLETE INSTRUMENT SERVICE

TENSION ANALYZER* IMPERFECTION COUNTER
UNIFORMITY ANALYZER* LAP TESTER
*Trade-Mark

SOUTHEASTERN OFFICE:
GREENVILLE, SOUTH CAROLINA
91 Cleveland St. • Phone 5-4079

Trained servicemen and complete stock of parts in the Brush Southeastern Office assure fast service when required.

BRUSH ELECTRONICS COMPANY

INDUSTRIAL AND RESEARCH INSTRUMENTS
PIEZOELECTRIC MATERIALS • ACOUSTIC DEVICES
MAGNETIC RECORDING EQUIPMENT AND COMPONENTS

BRUSH ELECTRONICS

Division of Clevite Corporation

Personal NOTES ABOUT MEN YOU KNOW

been elected an honorary vice-president of the National Association of Manufacturers.

The picture below was made during the testimonial dinner held recently at Haddonfield, Pa., for **Albert Willgoos,** who retired after 50 years as a

salesman for Lorraine Yarn Mills, Inc., Philadelphia, Pa.

Joseph Patrick is the new superintendent of Henry Myer Thread Mfg. Co., Chicago, Ill., succeeding L. Bird.

Floyd Waterhouse is now overseer of carding at the John B. Davidson Woolen Mills, Inc., Eaton Rapids, Mich.

New president of the Pennsylvania Textile Executives Association for 1955 is **Henry P. Lambert** of Windsor Manufacturing Co. Other officers of the Association are: **George Taylor,** textile consultant, first vice-president; **Victor DeGroote,** Jay-Gee Fabrics, Inc., second vice-president; **John Murphy,** Summit Worsted Mills, Inc., treasurer; and **Gwynne Sheppard,** formerly of Sheppard Mills, Inc., secretary.

George Wood Sons & Co., Philadelphia, Pa., has named **Richard D. Wood, Jr.,** president and **Grahame Wood, Jr.,** vice-president. They were formerly executive vice-president and assistant to the president, respectively.

Obituaries

Mary E. Allert, 43, head of the design department of Avondale Mills, Sylacauga, Ala.

M. George Burnett, 72, general manager of U. S. Rubber Co.'s Providence (R. I.) plant.

Joseph T. Carroll, 81, retired head of Kern & Carroll Dyeing Co. and Falls Silk Dyeing Co., both of Paterson, N. J.

Alexander W. Dannenbaum, former president of Old Pine Tree Silk Mills, Philadelphia, Pa. *(Turn to p. 32)*

CALENDERS

VAN VLAANDEREN MAKES 'EM BETTER

80 TON HYDRAULIC
40 TON HYDRAULIC
15 TON HYDRAULIC
20 TON EMBOSSING

BETTER because Van Vlaanderen's know-how in design is based on 53 years of superior service to the dyeing and finishing industry.

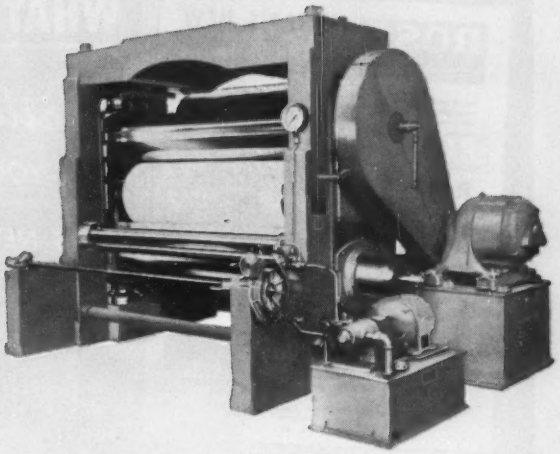
BETTER because Van Vlaanderen's standard of manufacture is the highest — no compromise with quality is ever tolerated.

BETTER because Van Vlaanderen Calenders give long trouble-free service under the severest operating conditions.

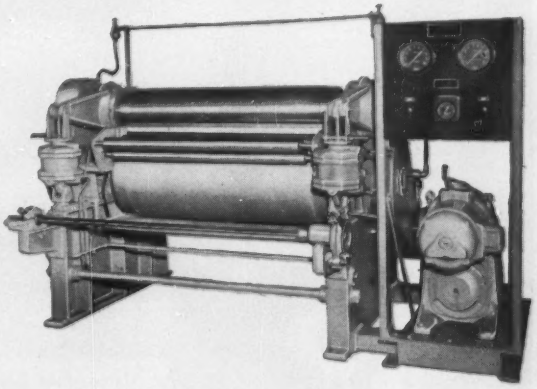
BETTER because you get the highest quality and better production of finished goods on Van Vlaanderen Calenders.

Van Vlaanderen's superiority is based on the correct design of each part to make a smooth operating unit. Take the 80 Ton Hydraulic Calender, for instance. Unit construction eliminates the need for special foundation and anchor bolts. Full 80 ton nip pressure is secured with only 770 pounds of oil pressure. This low pressure is possible because of the exclusive Van Vlaanderen large-area hydraulic ram designed with precision made pistons and four compression rings. Spherical roller bearings enable a 25 h. p. motor to easily drive the machine at 75 y.p.m. 16" top and 20" bottom rolls are made of turned, ground and polished chilled iron, channeled for steam. 22" intermediate roll is of bonded cotton on forged steel shaft.

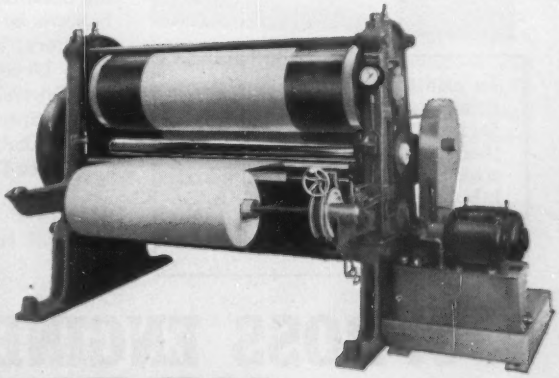
All Van Vlaanderen Calenders have many important quality features. Ask us to send you information on the calender that interests you.



80 TON HYDRAULIC - ALSO MADE IN 40 TONS



15 TON HYDRAULIC



20 TON EMBOSSING

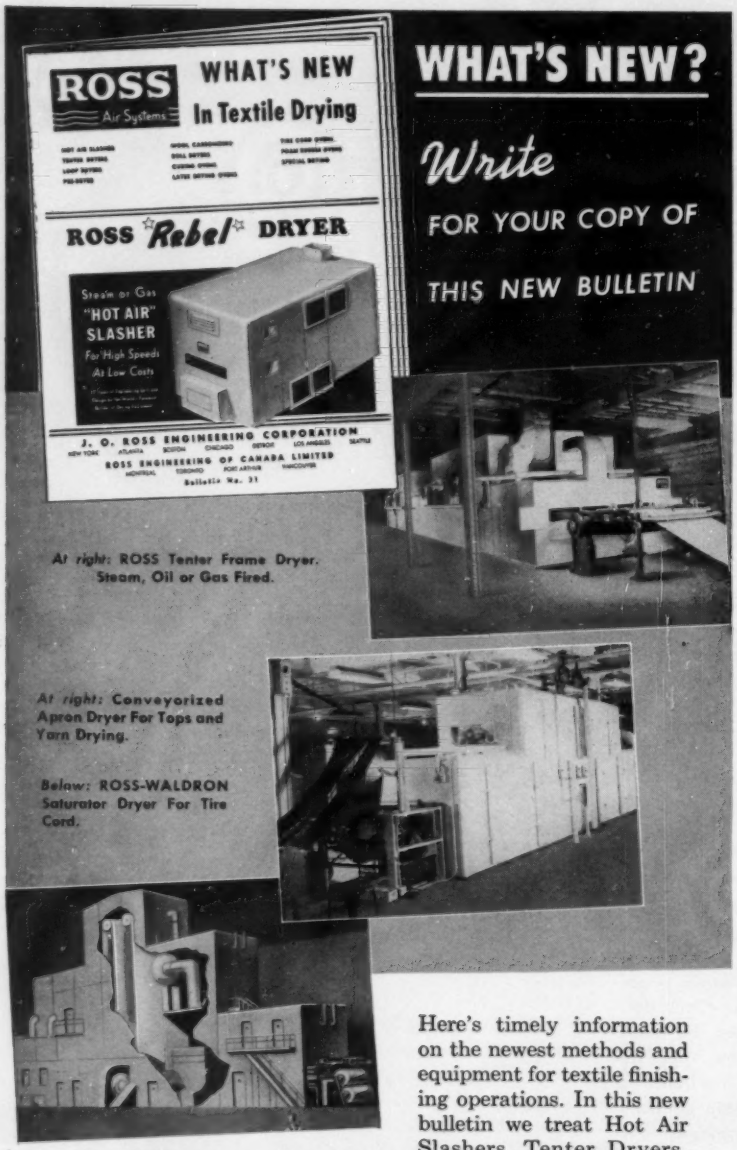
VAN VLAANDEREN

VAN VLAANDEREN MACHINE COMPANY

370 Straight Street, • Paterson 3, New Jersey

In the South — Parrott and Ballentine • 610 South Carolina National Bank Building • Greenville, South Carolina

WORLD'S LARGEST MANUFACTURER OF MACHINES FOR PROCESSING MODERN FABRICS



Here's timely information on the newest methods and equipment for textile finishing operations. In this new bulletin we treat Hot Air Slashers, Tenter Dryers, Loop Dryers, Pre-Dryers, Roll Dryers, Wool Carbonizers, and Special Drying as well as Tire Cord, Foam Rubber and Latex Drying Ovens.

Write for BULLETIN 31T *and copy will be sent promptly.*

In addition to the benefit of ROSS' 34 years' experience in this field, ROSS customers have at their command the most extensive, modern manufacturing and laboratory facilities to insure buyer satisfaction. You can rely upon recommendations by ROSS.

J. O. ROSS ENGINEERING CORPORATION

ATLANTA, GA.—3182 Peachtree Road, N.E. BOSTON, MASS.—79 Milk Street
CHICAGO, ILL.—201 North Wells Street NEW YORK, N. Y.—444 Madison Avenue
Detroit Los Angeles Seattle

Personal NOTES ABOUT MEN YOU KNOW

(Obituaries continued from p. 30)

R. N. Fickett, 80, founder and chairman of the board of Fickett Cotton Mills, Inc., Whitehall, Ga.

William W. Glenn, 79, founder of Glenn Mills, Inc., Lincolnton, N. C., and retired executive of Wisteria Hosiery Mills, Inc., Gastonia, N. C., and others.

William R. Klenk, 57, retired president of Klenk Landis Yarn Manufacturers, Philadelphia, Pa.

Wynfield J. Maynard, 65, founder of National Woven Label Co., Paterson, N. J.

C. Langdon Cheves, vice-president in charge of sales for Daniel Construction Co., Greenville, S. C.

J. Kyle Dudley, 60, manager of J. Sidebotham, Inc., Philadelphia, Pa.

Charles H. Johnson, 74, retired superintendent of Pilot Mills Co., Raleigh, N. C.

J. H. Wright, 83, retired textile manufacturer of Weaverville, N. C.

Peter O. Patry, 57, part owner and executive of Dover Lace Co., Pawtucket, R. I.

James I. Roy, 44, former president of Canadian Cottons, Ltd., Montreal.

Walter Wrigley, 91, former president and general manager of Narragansett Knitting Mill, Inc., Woonsocket, R. I.

Charles H. Carter, 80, retired president and founder of Portland (Ore.) Woolen Mills.

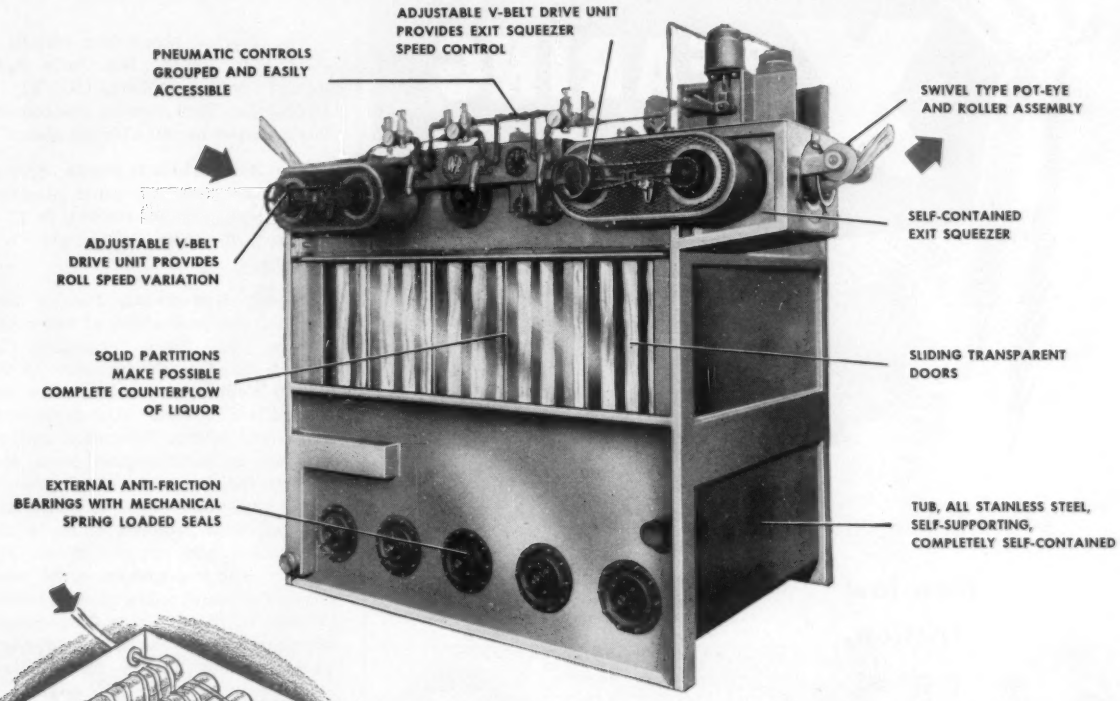
Canadian Textile Exhibit

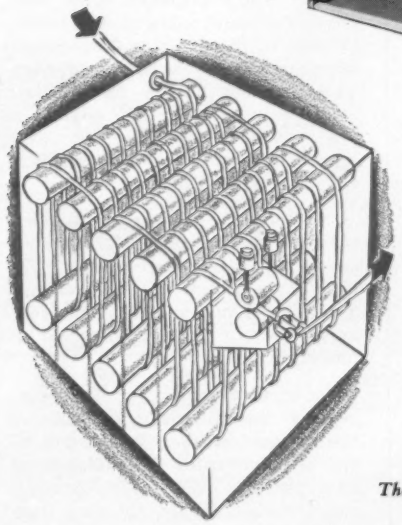
Textiles and knit goods, from raw material to finished product, will be paraded for public approval during a four-day exhibit to be held at the Sheraton-Mount Royal Hotel, Montreal, beginning April 20. The exhibit is sponsored by the Quebec Section of the Canadian Association of Textile Colourists and Chemists, in co-operation with the Primary Textiles Institute, L'Association des Couturiers Canadiens Inc., the Federal Department of Trade and Commerce, and by various textile machinery, dyestuffs, and chemical suppliers.

THE NEW WIESNER-RAPP
Multi-Stage Washer

(TRADE MARK) (PATENT PENDING)

VERSATILE... COMPACT... ECONOMICAL... ACCESSIBLE

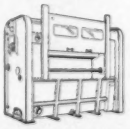

ADJUSTABLE V-BELT DRIVE UNIT PROVIDES EXIT SQUEEZER SPEED CONTROL
PNEUMATIC CONTROLS GROUPED AND EASILY ACCESSIBLE
SWIVEL TYPE POT-EYE AND ROLLER ASSEMBLY
SELF-CONTAINED EXIT SQUEEZER
ADJUSTABLE V-BELT DRIVE UNIT PROVIDES ROLL SPEED VARIATION
SOLID PARTITIONS MAKE POSSIBLE COMPLETE COUNTERFLOW OF LIQUOR
SLIDING TRANSPARENT DOORS
EXTERNAL ANTI-FRICTION BEARINGS WITH MECHANICAL SPRING LOADED SEALS
TUB, ALL STAINLESS STEEL, SELF-SUPPORTING, COMPLETELY SELF-CONTAINED

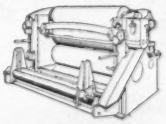


This totally-enclosed, high-speed multi-stage washer, of all stainless steel construction, will soap, wash, or treat a wide range of fabrics of various weights. It is compartmented to combine chemical or hot and cold processes. Auxiliary squeezers are designed to mount over any compartment. Great savings in water are possible because the washer is compartmented for positive counterflow. All compartments are free-draining and easily cleaned for quick changes from colored to white goods. The Wiesner-Rapp Multi-Stage Washer, which is shipped assembled, normally is mounted directly on the floor, with no pit required, and therefore little time is needed to put it in operation. It is easily threaded and can be used in harmony with other machines of a range or as an individual unit. Designed and built to Wiesner-Rapp high standards; requires minimum maintenance.

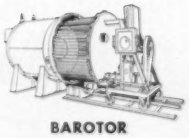
The Wiesner-Rapp technical staff will be glad to discuss Multi-Stage features with your personnel.

OTHER WIESNER-RAPP MACHINES


TIGHT-STRAND WASHER


3-ROLL PADDER

DYE BECK


BAROTOR

THE WIESNER-RAPP CO., INC.
1607 SENECA ST., BUFFALO 10, N. Y.
Manufacturers of Wet-Finishing and Dyeing Machinery

Logan

Now standardizing on the

X BEARING

Sectional view of the new Logan X-Bearing now furnished on 90% of Logan Rollers. Belt and Live Roller Conveyors equipped with X-Bearings require less horsepower.

New low friction, extra quiet, high efficiency bearing for conveyor rolls. Semi-precision construction, yet no increase in price.

Logan announces: All bearings No. 50 size (7/16" shaft) and larger are now X-Series type.

And here is good news: X-Bearings are available at the same price as old style bearings. This is possible because mass production has greatly reduced costs of manufacture. Also since X-Bearings are interchangeable with old style bearings they will be furnished on replacement orders.

X-Bearing, Logan's new low-friction bearing is patterned after designs formerly found only in expensive precision bearings. Less grade is required on gravity lines and the manual effort required has been correspondingly reduced on level push lines. Write for Folder X-1.

LOGAN CO., 206 CABEL ST., LOUISVILLE, KY.

Write for your copy of Folder X-1

Logan Conveyors

What the TEXTILE MILLS are doing

The general accounting offices of **Alexander Smith, Inc.** have been moved from Yonkers, N. Y., to Greenville, Miss., where the concern has a carpet manufacturing plant.

Bay State Thread Works, Springfield, Mass., has appointed Standard Mill Supply Co., Pawtucket, R. I., to dispose of their machinery and equipment.

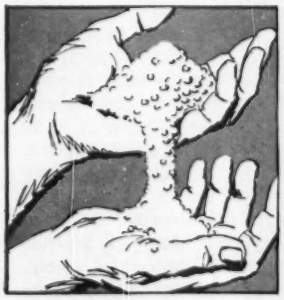
Buresh Nonwovens, Inc., a new firm for the production of nonwoven fabrics, has been organized by Francis M. Buresh, inventor of the Rando-Webber, a machine that can be utilized in the manufacture of nonwoven fabrics. Operation and offices are in Northampton, Mass. Machinery for the random web process, along with finishing equipment, will be used with products going to the automotive and apparel fields. Mr. Buresh, who is president of the firm, has been connected with the textile division of the Curlator Corporation, manufacturer of the Rando-Webber, East Rochester, N. Y., for the past eight years and recently resigned as sales manager. He will continue to represent Curlator in New England and other specified areas.

Caledonian Dye Works, Philadelphia, Pa., has completed a modernization program which includes the installation of two 400-tube package dyeing machines, as well as the conversion of all boilers from coal to fuel oil.

The sixth annual management survey by the American Institute of Management resulted in the awarding of Certificates of Management Excellence for 1954 to 379 American and Canadian firms, including **Cannon Mills Co.,** Kannapolis, N. C., **Pepperell Mfg. Co.,** Boston, Mass., and **West Point (Ga.) Mfg. Co.**

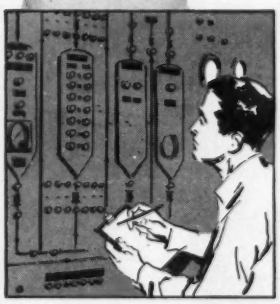
Collins & Aikman Corp., manufacturer of furniture and automotive upholstery, has started production of foam-rubber backed fabrics. The company will manufacture and distribute these fabrics under its "Candalon" trade name, using the process developed by the Andrews Alderfer Co., Akron, Ohio. This foam

GLOBE® pearl corn starch gives you all this...



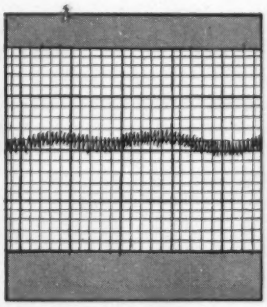
A SUPERBLY CLEAN PEARL STARCH

Put Globe Brand Pearl Corn Starch to the test. We know you'll be happy with the clean, clear size it makes. Globe Pearl Corn Starch is always available in the quantities you desire.



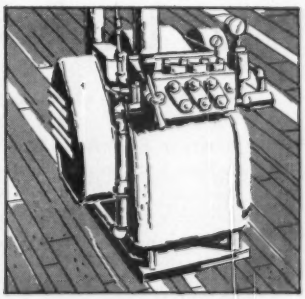
CONTROLLED UNIFORMITY

Globe Brand Pearl Corn Starch is made under exacting plant and laboratory controls. Each batch will meet your exacting specifications. This thick-boiling starch is ideal for warp sizing carded yarns.



VISCOSITY STABILITY

Globe Brand Pearl Corn Starch performs perfectly in the sizebox, producing a smoother, tougher size, giving a yarn with greater strength and reduced shedding.



IDEAL FOR HOMOGENIZERS

A special Globe Brand Pearl Corn Starch has been developed for homogenizers. It homogenizes to a uniform end-product, clean and stable, making a size that produces a better sized warp.

• Take advantage of our free technical and laboratory service. Send your specific production problems to us. We welcome the opportunity to serve you.

Corn Products Refining Company • 17 Battery Place, New York 4, N. Y.

Tennant shows 127-year-old EXETER MANUFACTURING CO.

how to make floors TWICE as bright — at ½ the cost

Here, in America's oldest cotton mill (in continuous use since 1827), the TENNANT System works its modern magic on the famous floors in Exeter, N.H.

You see the results above. The *tennantized* area (right) is easily twice as bright as before. Yet mills tell us it costs about 50% less to get such results *today* than it did just 5 years ago.

Here's why. Improved Tennant techniques now make floors far brighter, more dirt-resistant. Result: you save 40% to 60% in manhours, buff only 1/5 to 1/10 as often as before, and get 4 times longer average life from newly developed floor seals.

Write today; ask for estimate of NEW savings now possible in your mill.

VERY LITTLE BUFFING is needed today to keep Exeter's historic floors bright. Mill was built shortly after War of 1812.

TENNANT
ESTABLISHED 1870

G. H. TENNANT CO.
2524 N. 2nd Street
Minneapolis 11, Minn.

FLOOR MAINTENANCE SYSTEM

What the TEXTILE MILLS are doing

coating operation will be centered at the company's plant at Roxboro, N. C. * * * The concern is reported to be experimenting with a new cotton production system at its idle Mill H in Bristol, R. I. The Bird system of spinning is the name by which it is known.

"Welcome to Our New Home" reads the sign in the reception room at the new headquarters office of **Coats & Clark Inc.** and Coats & Clark's Sales Corp. The company recently moved into three floors in the new air-conditioned office building located at 430 Park Avenue, New York, N. Y. Provided for the comfort of the employees is a lunch room with vending machines for sandwiches, soft drinks, milk, ice cream, candy, and cigarettes. Utility kitchens with refrigeration are nearby for those who wish to prepare coffee or tea. Also on full-time duty is a registered nurse with a completely equipped hospital room.

With the introduction of the 1955 line of Eureka Velvelette, **Cone Mills Corp.** is celebrating the 25th anniversary of printed cotton flannelette production, begun at the firm's Revolution Mill division, in Greensboro, N. C. A special point of pride is that 262 of the large number of operatives employed in the production of flannelettes have 25 to 50 years of experience at their jobs with Cone Mills. While this is the Silver Anniversary for Cone's start on flannelettes in printed forms, the firm has been making plain flannelettes for 62 years. The plant which houses this vast production was built in 1899 in Greensboro and named Revolution "because it revolutionized the textile industry of its day in the South."

To get a better understanding of Germany's post-war progress from a textile manufacturing standpoint, including German-developed textile machinery and dyeing techniques, **Dan River Mills, Inc.,** Danville, Va., recently sent Dr. H. Y. Jennings, director of research, and R. M. Stevens, superintendent of grey goods manufacturing, on a 10-day visit to textile centers in Western Germany.

Deering Milliken Research Trust has published an informative brochure giving the characteristics of

METRO-ATLANTIC'S

Emboset
TRADE MARK

RESIN SERIES

NEW DEVELOPMENTS!

For the Finest Stabilizing, Crease Proofing, Embossing and Glazed Chintz Effects

Emboset LOCLOR

LOW CHLORINE RETENTION. Produces crush resistant and stabilized effects on cottons and rayon. Emboset Loclor is one of the lowest chlorine retentive resins on the market today. Wherever fabrics are subjected to washing and bleaching . . . this is your resin! Low chlorine retention keeps yellowing and tensile strength losses at a minimum. The resulting finish is wash resistant, crease resistant and fully stabilized. A durable resin which produces highly efficient mechanical effects.

Emboset B

SOFT HAND FOR SYNTHETICS, COTTONS and MIXTURES. A liquid stabilizing and crush proofing resin with a high shelf life. Easiest resin you ever used . . . extremely economical. Produces soft hand with superior fastness properties, crease resistance and shrinkage control. Very compatible with other resins. Applicable to synthetics and mixtures. Durable . . . produces highly efficient mechanical effects.

Emboset N R

FIRM AND FULL HAND. A crease proofing, stabilizing liquid resin that produces firmness, resiliency and shrinkage control on hydrophobic fibers such as acetate, orlon, dacron, nylon, etc. Especially good for heavy nylon shoe cloth, or for nylon blouse finishes where a firm, resilient hand is required. Economical and easy to run. Comparatively easy to cure . . . has high shelf life. Durable . . . produces highly efficient mechanical effects.

Technical data on the new Emboset Series available on request. Test runs arranged at your convenience.

METRO-ATLANTIC INC.

Manufacturers of Chemicals, Dyes and Intermediates
CENTREDALE 11, RHODE ISLAND

Offices and Warehouses: Greenville, S. C., Paterson, N. J.
Canadian Branch: Granby, Quebec
Imported Dyestuff Specialties: Farbwerke Hoechst AG, West Germany

you can BET on Franky

the horse of another color!

✔ to **WIN** your customer's confidence

✔ just **PLACE** your orders with us

✔ we'll **SHOW** you fast colors and quality yarns

COTTON YARNS

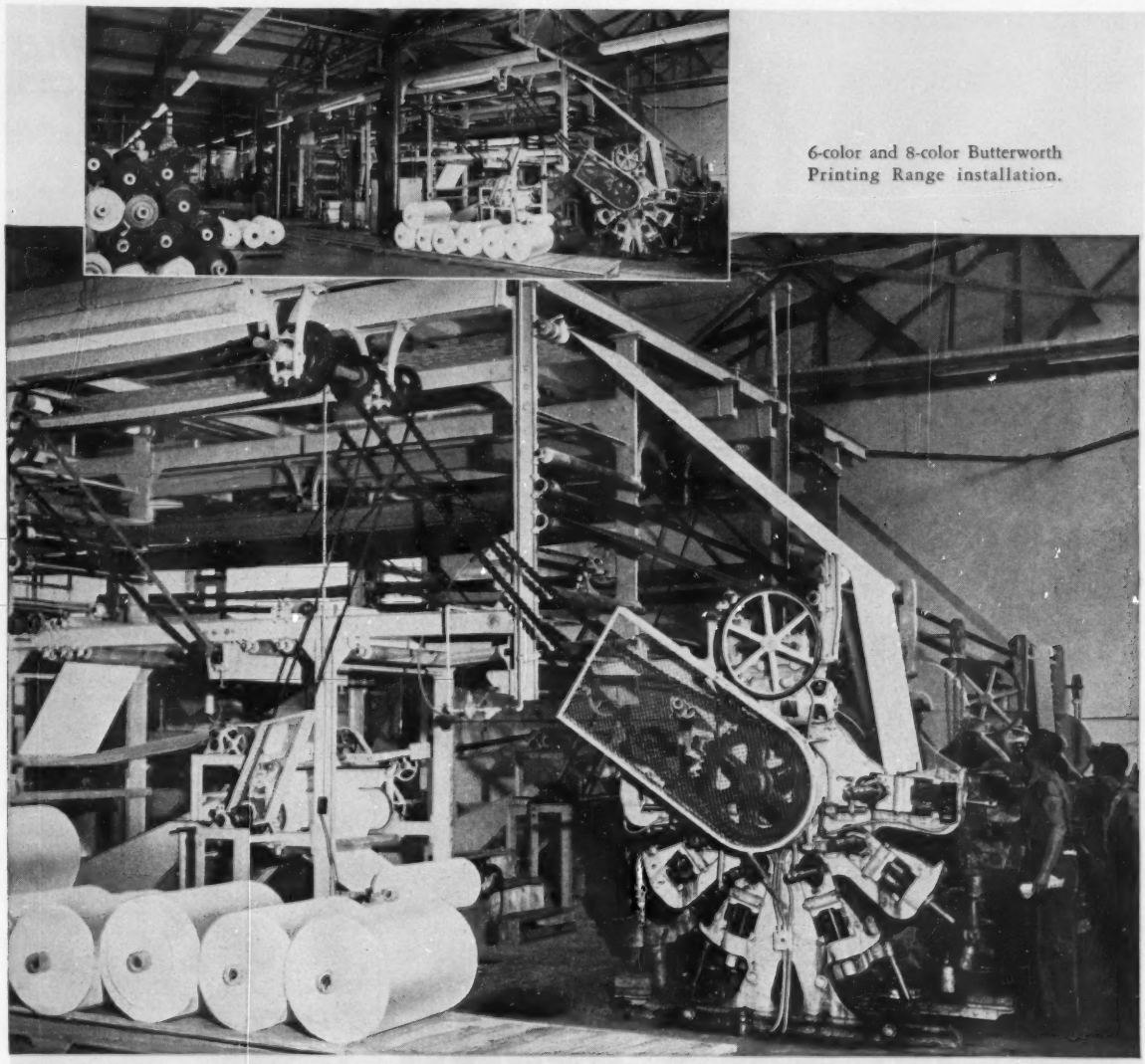
Franklin Process

& CUSTOM YARN DYEING . LARGEST PACKAGE DYERS IN THE WORLD

PROVIDENCE • PHILADELPHIA • GREENVILLE

CHATTANOOGA • FINGERVILLE, S. C.

New York Representative — 40 Worth Street



6-color and 8-color Butterworth Printing Range installation.

Accurate Register . . . with precision-built Butterworth Printing Machines

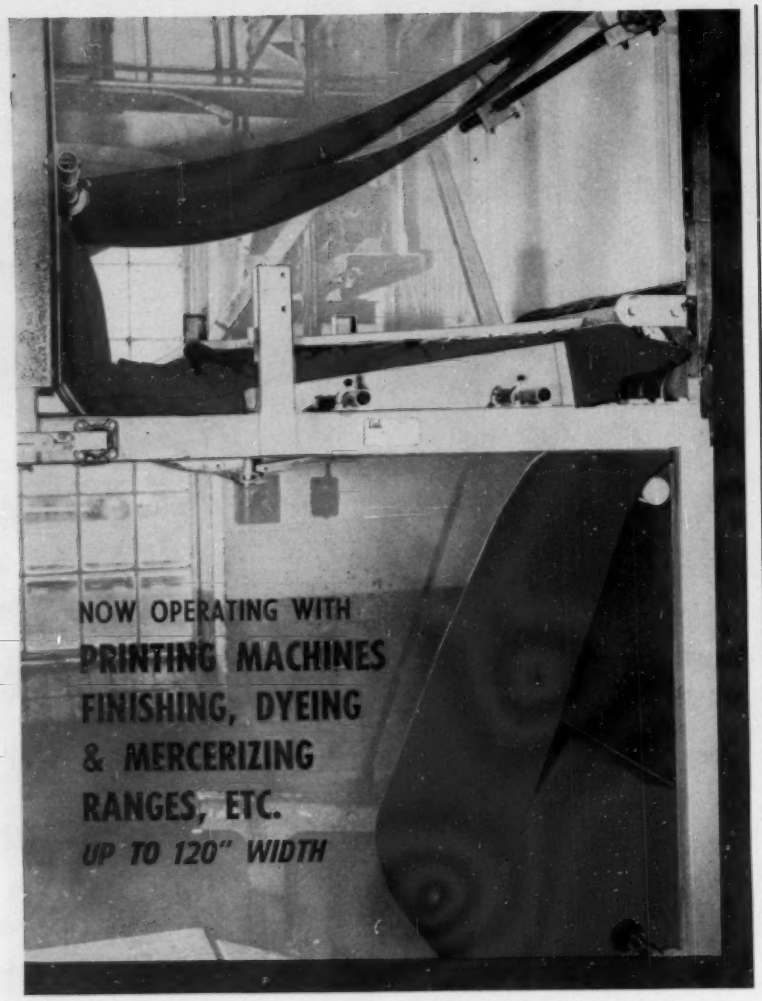
Butterworth Printing Machines are designed and precision-built to permit close control of printing on cotton, silk, or synthetic fabrics. Up to 14 color shades in multiple patterns and small figure designs are registered accurately by means of precision-machined nips.

To assure smooth, high-speed operation, Butterworth Printing Machines are equipped with roller bearings . . . printing cylinder is heavy, balanced and rubber-covered . . . side frames are ruggedly constructed for long-term heavy duty. For full details, call or write —

H. W. BUTTERWORTH & SONS CO.
Bethayres, Pennsylvania
1211 Johnston Building, Charlotte, N. C.
187 Westminster Street, Providence, R. I.
Representatives in Principal Cities of the World

Machines for Bleaching, Boiling-Out, Dyeing, Mercerizing, Finishing & Embossing
Pot Spinning Machines for Synthetic Fibers
Calender Rolls : : Tenter Chains

BUTTERWORTH



Horizontal scray

1. Eliminates down-time. 2. Reduces seconds. 3. Overhead installation saves floor space. 4. Stores more cloth per lineal foot. 5. Automatically maintains full scray. 6. Ups production 15%.

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FINISHING, DYEING, BLEACHING, MERCERIZING, OPENING & WASHING RANGES

What the TEXTILE MILLS are doing

and uses for "Agilon," the new nylon filament stretch yarn developed by that organization (TEXTILE INDUSTRIES for November 1954, page 136).

Installation of 7,800 new spinning spindles and two lines of new opening room machinery, including the latest type feeders and cleaners, is planned for this year by **Drayton Mills,** Spartanburg, S. C. This is part of a $400,000 expansion and modernization program which was initiated last year when 8,300 new spinning spindles and a high speed spooler and warper were installed in the cotton preparation department and a nine-can slasher in the rayon preparation section.

Women's full-fashioned nylon stretch stockings are now being produced by the **Durham (N. C.) Hosiery Mills** and marketed under the copyrighted name "Phantom."

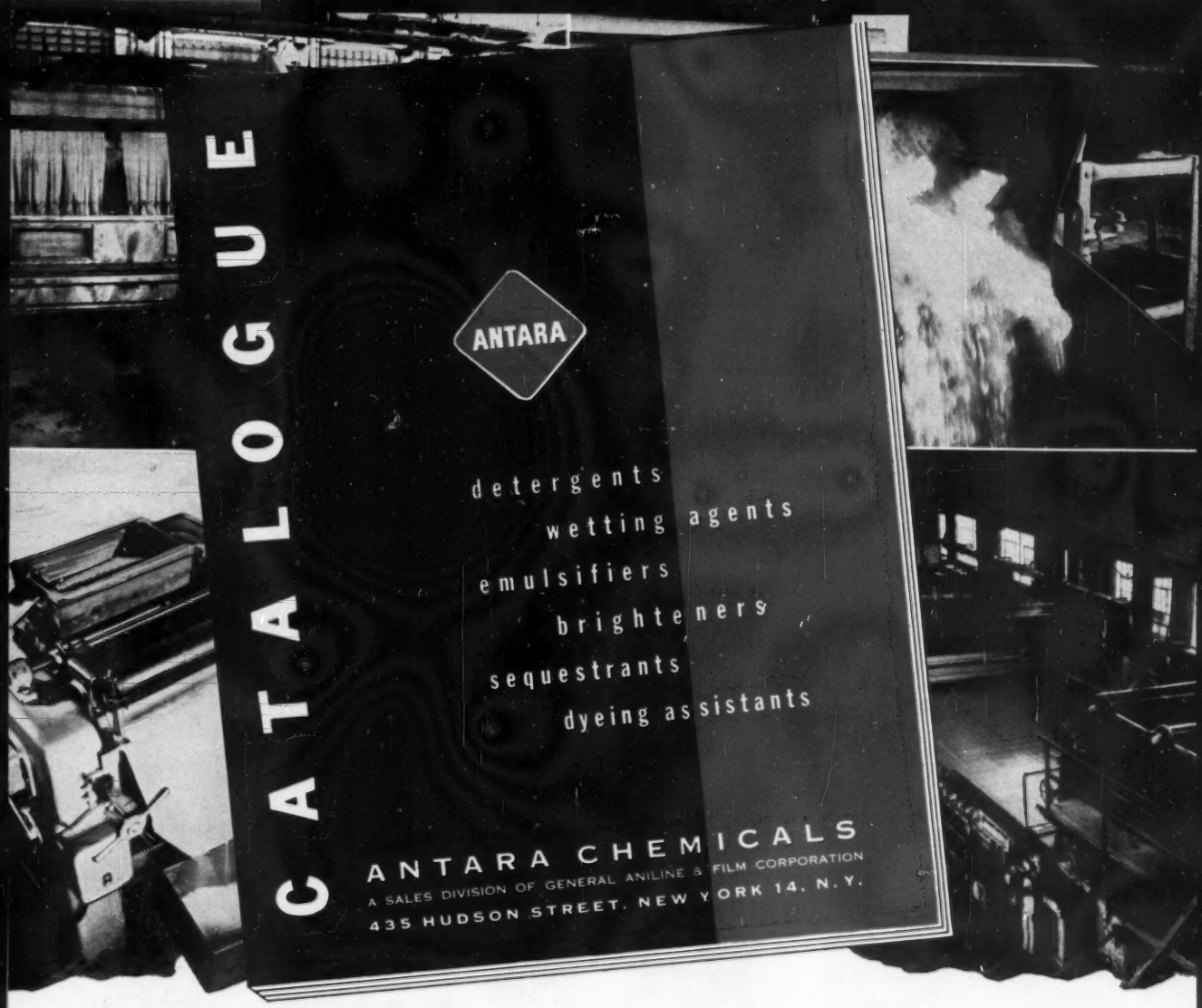
Space for 75 additional looms will be available at **Esther Mill Corp.** in Shelby, N. C., when a three-story addition, now under construction, is completed.

Exeter Hosiery Mills will move its operations from Long Island City, N. Y., to the mill recently purchased from the Wilmington (Del.) Hosiery Mills.

Julius Kayser and Co.'s subsidiary in Fountain Inn, S. C., **Fairview Mills, Inc.,** is undergoing a large expansion and improvement program, in which $100,000 are being spent for new dye house equipment. Additional storage space is being constructed so that 12 more tricot knitting machines can be installed. It is expected that this expansion will necessitate an increase in personnel of about 10 to 15 per cent.

Martin Javian, owner of **Fiberbond Laboratories** of Watertown, Mass., has purchased the Shawmut Division of **Richard Borden Mills Corp.,** Fall River, Mass., and will utilize the facilities in the production of "Tek-Ja" yarn which is manufactured by a new process that eliminates twisting (see story on page 100 of this issue).

Lexington, N. C., is the home of the newly incorporated **Foil Hosiery Mill, Inc.** M. G. Pickett, Jr., and W



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ATLANTA, GEORGIA

What the TEXTILE MILLS are doing

G. Coble of Burlington and Foil Michael of Lexington are reported to be interested in the corporation.

Franklin (Mass.) Woolen Mills is reported to have replaced about twenty obsolete woolen looms with new ones.

Full ownership of the **Glass Fabrics Finishing Corp.,** Cedar Grove, N. J., has been acquired by **Hess, Goldsmith & Co., Inc.,** which formerly shared ownership with the Waldrich Co., Delawanna, N. J.

Globe Dye Works Company, Philadelphia, Pa., celebrates its 90th Anniversary this year. Founded in 1865

by Richard Greenwood and William Bault, the Globe plant of today, occupying over 100,000 square feet of space, stands on the site of the original plant.

Hazel Knitting Co., Burlington, N. C., has purchased the real estate and machinery of Robbins Knitting Co., Spruce Pine, N. C., from its new owner, **Johnston Mfg. Co.,** of Charlotte, N. C., which had recently acquired the property under liquidation proceedings.

The spooler and warper department at **Joanna (S. C.) Cotton Mills Co.** is being modernized. A two-story addition to the mill for this purpose is now under construction, with completion scheduled for May. Also, five new high-speed spoolers and four new warpers have been purchased for installation to be completed this fall.

The name of Kanmak Mills, Inc., Kulpmont, Pa., has been changed to **Kanmak Mills (Pa.) Inc.**

Landrum (N. C.) Hosiery Mills, manufacturing facilities of which were destroyed by fire last December [TI for February, page 22], has

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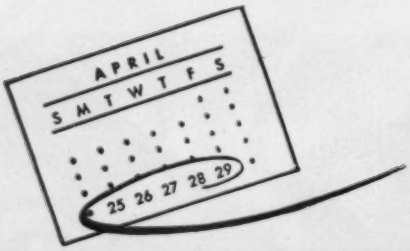

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APRIL 25-29

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- New ideas for streamlining production.
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- Under one roof, you and your associates (plant superintendent, purchasing agent, sales manager) will see every major production innovation suitable for the knit goods trade, thus saving you time and expense and also enabling you to make the necessary comparison on the spot.
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Suppliers interested in exhibiting should apply promptly — as available space is now limited.

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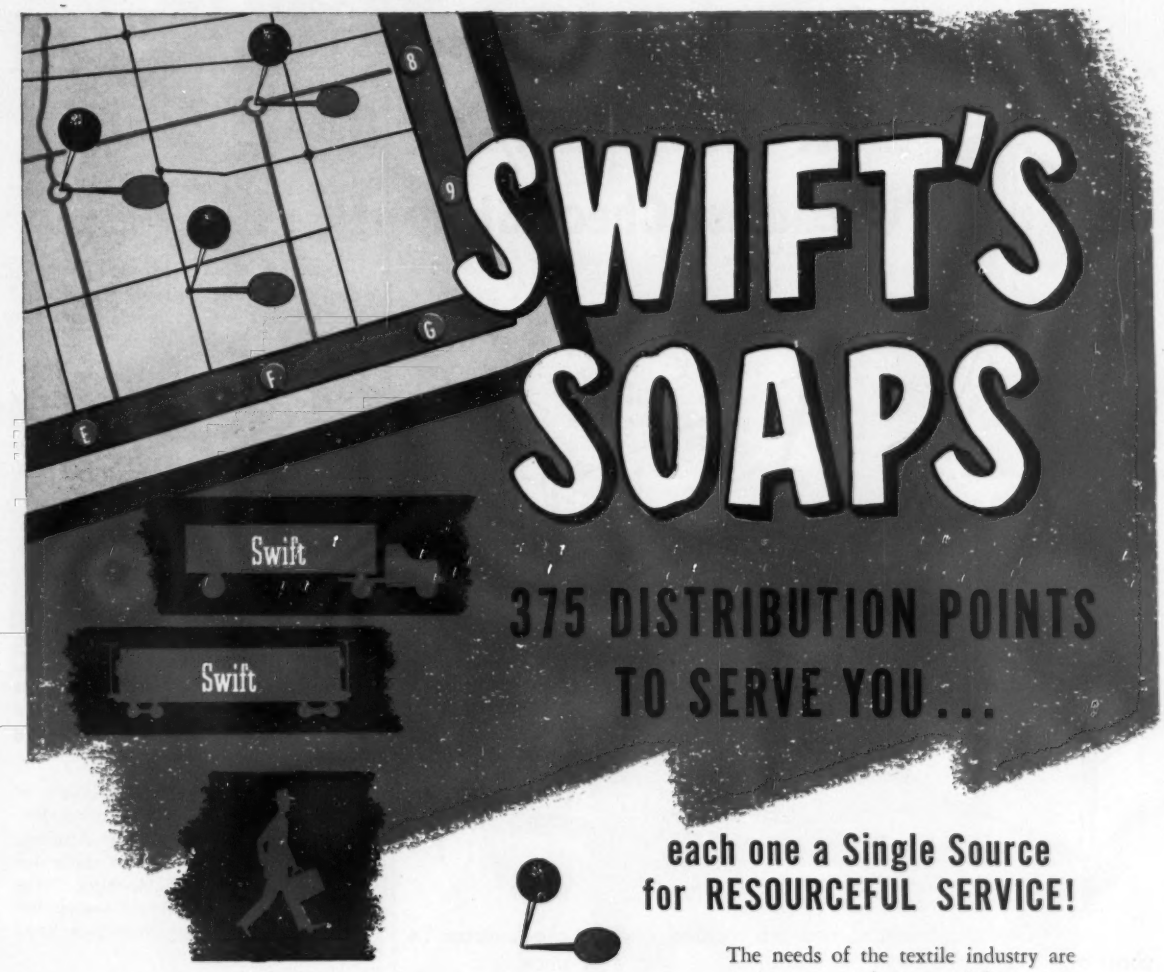

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That's why your Swift's Soap needs are attended to through a dependable network of 375 sales and distribution points located throughout the U. S. and Canada. Through constant, on-the-spot service to the varied needs of our many customers, Swift & Company has built a background of experience with *your* soap problems that draws upon 40 years of supplying to the textile industry. Backed by *practical* research, occasioned by day to day dyeing, fulling and scouring needs, your Swift's man is resourceful, dependable . . . a *single* nearby source for a versatile line of soap and detergent products for your every requirement. The list at left represents but a few of the many textile soap products available on immediate delivery — look it over, write for details and remember . . .

ONE TRIAL IS BETTER THAN A THOUSAND CLAIMS

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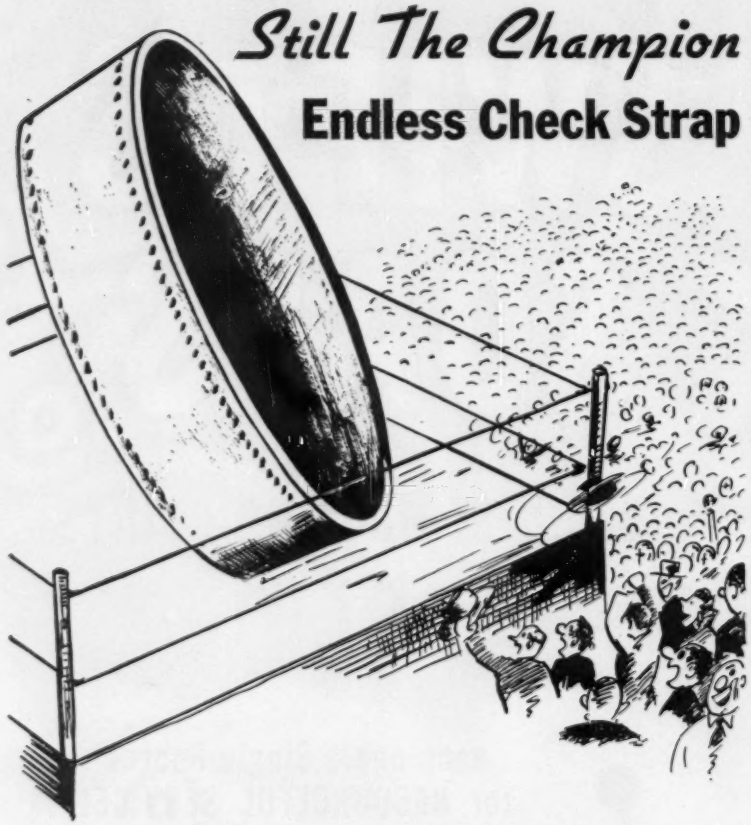
The Original And Still The Champion Endless Check Strap



Dodenhoff introduced the molded endless check strap 14 years ago — and has been the leader in the field ever since.

The Champion Endless Check Strap gives longer and better service because it is molded to hit the picker stick squarely each time and is so built that it retains its shape throughout its long life. Average service is 15 months — 2 shifts — over 65 million picks per strap.

Champion Straps are made of flawless center-stock 2-ply English hair-on steerhide. This is thoroughly prestretched. Three-inch laps are firmly bonded by glue and pressure, tops and bottoms are Nylon stitched, and the check strap is then put through several forming operations to permanently set the striking angle.

We are confident that no other endless check strap will out-perform the Champion . . . the original. Order a supply today and make your own comparisons.

W. D. DODENHOFF CO.
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What the TEXTILE MILLS are doing

purchased the former Cub Hosiery Mill in Landrum and plans to construct a new building adjacent to it.

Machias (Me.) Mfg. Co. has constructed a new building which will permit increase of looms from 240 to 300.

Minnette Mills, Inc., Grover, N. C., plans construction of a building of about 14,000 sq ft and purchase of a tenter frame and piece dyeing equipment. The new plant will be located on property adjoining the present plant.

Munsingwear, Inc., Minneapolis, Minn., has opened a new hosiery finishing plant in Vinita, Okla., and closed the Des Moines, Ia., plant. Lester Davis, manager of the Des Moines plant, is now manager at Vinita. About 7,000 dozen weekly is the production anticipated for the new plant, with employment ranging between 125 and 150.

New West Coast headquarters of **The Narrow Fabric Co.,** Reading, Pa., are at 1635 Santee St., Los Angeles, Calif. This new location provides larger quarters for stocking "Nu-fashond" notions. Former warehousing facilities in San Francisco have been discontinued.

Neisler Mills, Inc., Kings Mountain, N. C., has leased the idle Double Shoals Mill, Shelby, N. C., and will put it back into operation. This mill, under Neisler, will be called Belmont No. 2, since it is the second mill in the Shelby area operated by Neisler. Manager of the mill, which will manufacture yarn, will be Tom Moore, who operated the mill previously.

A $250,000 lake is being constructed by **Pacific Mills** on the Middle Tyger River near the company's Lyman, S. C., plant, not only to provide a reserve water supply for the mill operation, but also as part of its effort to prevent pollution of the river.

Patchogue-Plymouth Lace Mills Corp., Patchogue, L. I., N. Y., which is credited with giving the nickname of "Milltown" to the village, ceased operations in January of this year. The shutdown was announced last August, with the steady decline in the demand for lace curtains given as the

HUNTER *equipment safeguards quality at*

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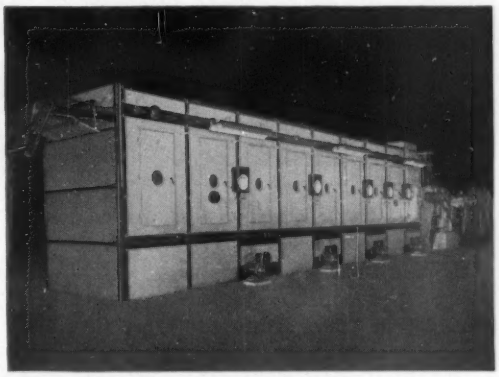
The Pendleton Woolen Mills assures its customers continuous high quality in its complete line of men's and women's sportswear, blankets and robes by using 100% Virgin Wool exclusively, and maintaining a careful control over every phase of production.

Wherever quality is so safely guarded, it's only natural to find Hunter equipment "on the job." Mills throughout the world prefer Hunter "plus production" equipment for the superior finishing of a wide variety of *synthetics, cottons, blends,* and *woolens.*



The Hunter Cloth Carbonizing Range shown above is similar in many respects to the installation at Pendleton Mills. Hunter Carbonizing systems are used in mills throughout the world to achieve consistent high quality production.

plus production

- efficient operation of modern equipment
- less down time of equipment
- quick, easy repair . . . rapid parts delivery

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Mill installation of Whitin Pacemaker Twisters

WHITIN Pacemaker TWISTERS

...they lead the field in Production, Performance and Quality

Whitin Pacemaker Twisters have established unsurpassed performance records for their high production, quality of yarn, minimum maintenance and operating costs. For cotton and spun synthetic yarns, they are available in 3″- 6″ gauge, with traverses up to 9″, 2½″- 4½″ rings. Their notable features are:

- **Front bottom roll arrangement to provide a yarn path that is in almost vertical line from bottom of front roll to the guide.**
- **Laminated bakelite gears meshing with metal gears in the head end, for noise reduction and long wear.**
- **Spring counterbalanced ring rail.**
- **Spring weighted anti-friction tape tension pulleys.**

Also available

- **Steel pulleys on continuous drive shaft for spindle drive.**
- **Slotted ring rails for full length stationary separator blades.**
- **Stationary guide rod behind spindles for supporting ring rail traversing mechanism which prevents contamination of yarn when ends are down.**
- **Ball bearing or roller bearing spindles.**

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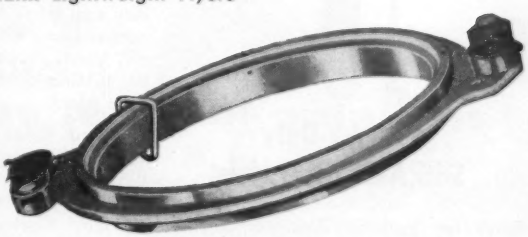
Herr Flyers produce light tensions at high speeds — perfectly balanced for accurate yarn control and reduced vibration. Special Herr Flyers for installing twist and untwisting are available. Nylon bearings balance the action of the yarn and reduce bearing contact on the spindle for perfect control of twist and untwist.

Herr Conical Rings are self lubricating with minimum oil consumption and long Traveler life. Controlled lubrication results in clean yarn especially valuable when handling the new bulk or stretch yarns.

Let Herr Engineers solve your Twisting and Spinning Problems. Let us show you how easy it is to get into this new and profitable production of high bulk yarns.

See us at the Knitting Arts Exhibition at Atlantic City — Booth Nos. 38-39.

HERR Lightweight Flyers



HERR Conical Rings

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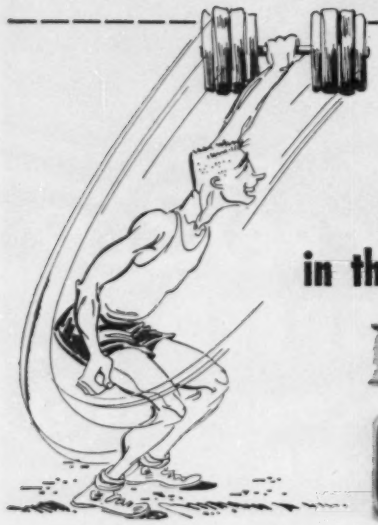
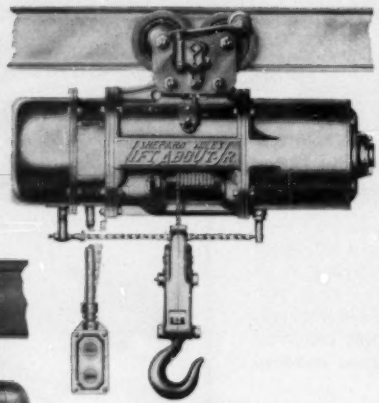
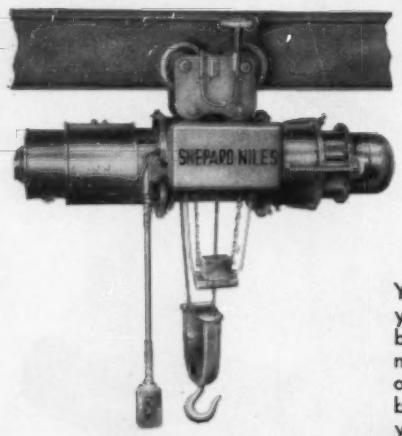


LIFTING CHAMP

in the electric hoist field



Medium-Service
LIFT-ABOUT-JR.



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YOU GET A HOIST that will lift your loads year after year when you buy one bearing the Shepard Niles name. Long after you've written it off, your Shepard Niles Hoist will be cutting costs, speeding work in your plant.

Shepard Niles offers you electric hoists of proven quality for cycle duty, heavy intermittent duty, medium duty and light-occasional service. Choice of medium and heavy capacities with slow, medium and fast speeds. Available with short to long lifts, standard or close headroom . . . manual or magnetic controls.

CRANES
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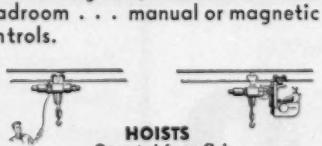

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What the TEXTILE MILLS are doing

reason. The property and buildings of the mill have been offered for sale.

A new woolen yarn manufacturing plant, the **Pinnacle Manufacturing Co.,** is located in the former Dorr Woolen Co. plant in Guild, N. H. New machinery has been installed and operations are under way. R. W. Mortenson is president of the new concern and George A. Dorr, Jr., vice-president and treasurer.

New location of the **Pitman Hosiery Mills** is Lakeport, N. H. The plant was previously in Laconia, N. H.

Poughkeepsie Piece Dye Works, Paterson, N. J., has taken over 75,000 sq ft of floor space on property formerly occupied by Grant Finishing Co. Equipment includes 14 jigs and 17 stainless steel boxes.

Riegel Textile Corp., New York, N. Y., has announced that a new fabric, Noil-Suede, is now available. This is a cotton flannel with a woven-in noil effect.

A textile group of Marion, N. C., headed by R. W. Twitty, president of Marion Mfg. Co., has leased the Henkel Mill Co.'s **Rocky Creek Mills** spinning unit in Turnersburg, N. C. New machinery is being installed to increase the production of the plant, and operation continues without change in personnel. Rocky Creek Mills is the name retained for the mill by the lessee.

Royce Hosiery Mills, Inc., Fleetwood, Pa., is expanding into Reading, Pa., where a portion of the third floor of the Nolde & Horst Co. building has been secured under lease. 68 of the Royce knitting machines have been moved to Reading and production of stretch socks is underway. Manufacturing is centered in Reading, while most of the embroidering is done in the Fleetwood plant.

Properties of the **Royston (Ga.) Mills, Inc.,** have been acquired by **Dalton (Ga.) Candlewick, Inc.,** a subsidiary of the Dixie Mercerizing Co., Chattanooga, Tenn. New equipment is being installed with plans to utilize the plant mainly for the manufacture of cotton yarns, leaving the Dalton plant free for running of synthetic yarns for the tufted textile industry.

Production of rayon yarns on cones

Monsanto
TEXTILE
TALK

NEW STAR

joins Monsanto's famous team of catalysts!

AC-6 steps up curing efficiency as much as 25%

Resin-finished textiles can now be cured more rapidly—more efficiently.

New AC-6 was formulated by Monsanto for faster catalytic action. It lets you approach complete resin utilization at the lowest possible cure cycle.

Uniformity of resin application is assured by its relatively long bath life. Catalyst AC-6 also permits full development of fabric properties. There is minimum resin add-on—minimum danger of odor formation.

You get all this—and economy, too. Increased catalytic activity is combined with low product cost.

AC-6 is compatible in resin baths with urea formaldehyde, methylated methylol melamine, modified urea resins, and most cationic, anionic and non-ionic softeners and penetrants.

In mill runs on cotton fabric, Catalyst AC-6 has demonstrated its ability to outperform other catalytic agents. When AC-6 was added to the bath, identical fabrics showed superior emboss durability, gloss retention and wrinkle recovery.

Mail coupon today for technical bulletin and sample bottle of Catalyst AC-6.

For faster, low-cost curing . . .

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Please send me, without obligation, the technical bulletin on new Catalyst AC-6, and 8-oz. sample bottle.

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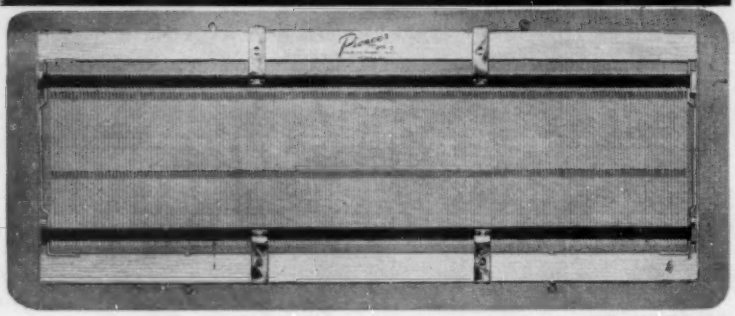
PIONEER'S DRAW-RITE FRAME

IT'S NEW!

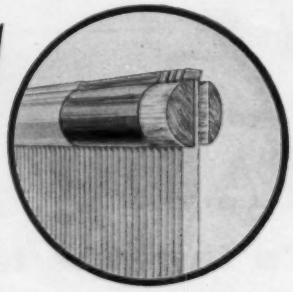


PAT. APPLIED FOR

The Pioneer Draw-Rite Frame fulfills all the requirements of the new-type drawing-in machine. Features include an end piece which enables heddles to be slipped on and off easily; heddle bars which are riveted to rod supports; and a complete adjustment on each support.

Draw-Rite Frames are available with both single and double bars. Double bars can also be drawn on drawing-in machine. Draw-Rite Heddles are available for all type frames.

PIONEER'S NU REED



With Patented Rib Construction

The 10% to 15% extra weaving space afforded by NU REED has made this the Reed that mills have sought for many years. Added strength is gained by using wider wire, making a more resilient, durable reed. No loom realignment is necessary and NU REED is interchangeable with standard reeds in use today.

INVESTIGATE THESE FAMOUS MILL-TESTED PRODUCTS:

FLAT STEEL HEDDLES
REPAIR HEDDLES
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Tel. LD. 48

What the TEXTILE MILLS are doing

for the rug industry has been started in one department of the **Shuford Mills, Inc.,** Hickory, N. C.

Construction of a modern swimming pool with a water area of 50′ x 100′ and a bath house at the Springmaid Golf Club in Chester, S. C., is planned for the near future by **Springs Cotton Mills,** with completion scheduled for this summer.

A certificate of incorporation has been issued to the **Stevens Hosiery Mills, Inc.,** Hickory, N. C., and the concern is producing men's socks. Located in the building with Piedmont Hosiery Mills, Inc., it will operate in conjunction with the latter mill.

Cashmere, camel's hair, lamb's wool, and specialty yarns are being manufactured in Charlotte, N. C., by **Stickley Specialty Yarn Corp.,** officers of which are: John L. Stickley, president; John L. Stickley, Jr., vice-president; R. Lee Pickens, secretary; and James N. Rogers, Jr., treasurer.

A newly organized corporation, **Tex-Lane Dyeing and Finishing Corp.,** has purchased the plant formerly operated by Tex-Lane Dyeing Co. in Brooklyn, N. Y. Cotton and synthetic fabrics are dyed and finished, and nylon is heat set. Abraham Metalka is president; Ralph Guerriero, treasurer; and Paul Monahan, financial secretary.

3,000 more warp spindles, increase in floor space of the No. 1 plant where the new spinning is being added, and air conditioning of the spinning room of the No. 2 mill are elements of an expansion program now under way at the Liberty, S. C., plants of **Woodside Mills.**

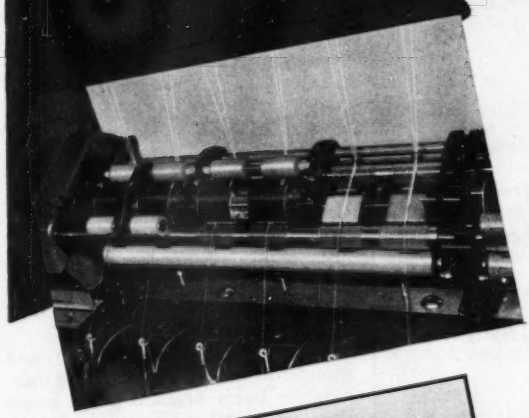
A new plant for **West Point Mfg. Co.'s** Lantuck non-woven fabric operation is being constructed on land owned by the company on the River View Road about one and one-half miles south of Fairfax. Employment will be provided for approximately 100 additional persons. Joseph L. Lanier, president, commenting on the announcement, said that "the Lantuck operation has now grown beyond the development stage and more space is required for the storage of raw materials and finished goods."

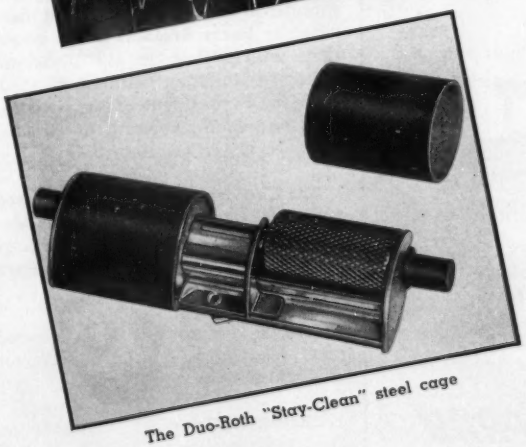
IT'S NEW

IT'S EFFICIENT

IT'S CLEAN

SACO-LOWELL "STAY-CLEAN"* DUO-ROTH DRAFTING





The Duo-Roth "Stay-Clean" steel cage

FRONT ROLL
A new self-aligning, center suspended, Saco-Lowell anti-friction front roll held in a Dixon saddle guide, which eliminates the front cap bars, assures perfect alignment at all times of the front top roll with the bottom steel roll. The advantage of this perfect alignment is better drafting and prolonged life of the top roll covering as has been so successfully demonstrated on the over-1000 Gwaltney frames now in operation.

MIDDLE ROLL
Mill tested Duo-Roth assembly with anti-friction middle roll. Has sealed-in lubricant which eliminates danger of spoiling top or bottom apron with oil and friction drag. The rugged, steel cage is a precision product. Simple means are provided to accurately adjust the clearance between the aprons for the optimum in fibre control.

BACK ROLL
Solid back roll with Nylon gudgeons and a saddle with Rulon bearings. Roll never needs oiling — needs but little cleaning.

RANGE OF DRAFTS
The ability of the "Duo-Roth" Drafting System to give increased drafts ranging from 60 to 100% over current standards and at the same time produce stronger and more uniform yarns has been demonstrated on thousands of spindles in quality-minded mills throughout the world.

AVAILABILITY
The Duo-Roth "Stay-Clean" drafting system can be supplied with new spinning and as a changeover for frames now equipped with Roth spinning.

For further information or a demonstration, contact the nearest Saco-Lowell Sales Office.

*Trademark

SACO-LOWELL
60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

NEW...Sales-winning TEXTILE PACKAGING

with Perfect Electric-Eye Registration . . . directly from Your Printed Package Design!

EASY AUTOMATIC OPERATION

Regardless of size or shape, you get a neat, tight, perfect-register wrap on every package with a Hayssen automatic wrapping machine. Also, production men report savings up to 80% over previous wrapping costs.

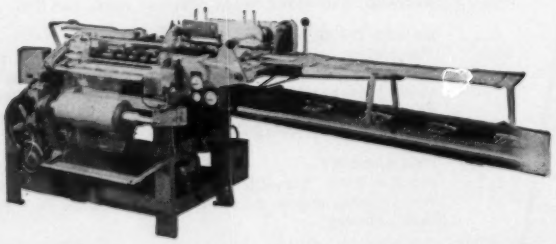
FASTER, SIMPLE TO CHANGE SIZE

No complicated adjustments from size-to-size on a Hayssen. No gears or sprockets to remove or change... no need for expensive mechanics to change size, either. So simple the operator does it on the job.

COSTS LESS, DURABLY BUILT

Hayssen's simple, rugged design, using fewer moving parts, keeps these machines working and saving through years of dependable, trouble-free service. Both the cost of the machine and the maintenance are so low you won't believe it.

See us in Booths 555-556, Knitting Arts Exposition, Atlantic City, April 25-29



Let our Packaging Engineers help you with your packaging problems . . . WRITE US TODAY for further details.

Hayssen MFG. COMPANY

Since 1910, Manufacturers exclusively of automatic wrapping and packaging machines.

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Atlanta • Boston • Chicago • Dallas • Denver • Detroit • Los Angeles • Minneapolis
New York • Philadelphia • St. Louis • San Francisco • Seattle • Montreal • Toronto

SUPPLIERS News

WHAT THEY ARE DOING

Announcement is made by **Advance Solvents & Chemical Corp.** that it is now able to supply various grades of silicone catalysts, particularly developed for use with silicones in waterproofing textiles. Both tin and zinc catalysts are offered.

Charles W. Parker, Jr., has been named manager of the Richmond, Va., district of **Allis-Chalmers Mfg. Co.,** general machinery division, succeeding the late Charles L. Crosby.

Beckman Instruments, Inc., has appointed Thomas J. Kehoe as application engineer. He will be concerned

Mr. Kehoe

principally with industrial pH in the waste and process control fields, and with flow colorimetry.

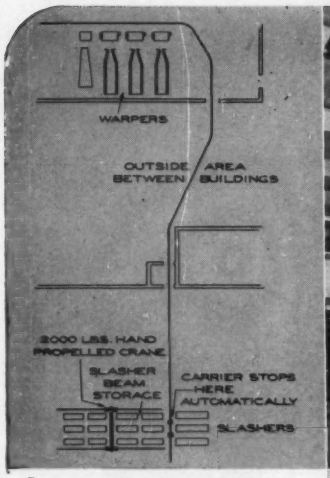
Hosiery packaging machinery and supplies are being produced and marketed by **Berry Brothers Corp.,** a new firm with offices in the Jefferson Standard Building, Durham, N. C. J. C. Berry is president of the corporation, and McNeill Smith of Greensboro, N. C., is secretary.

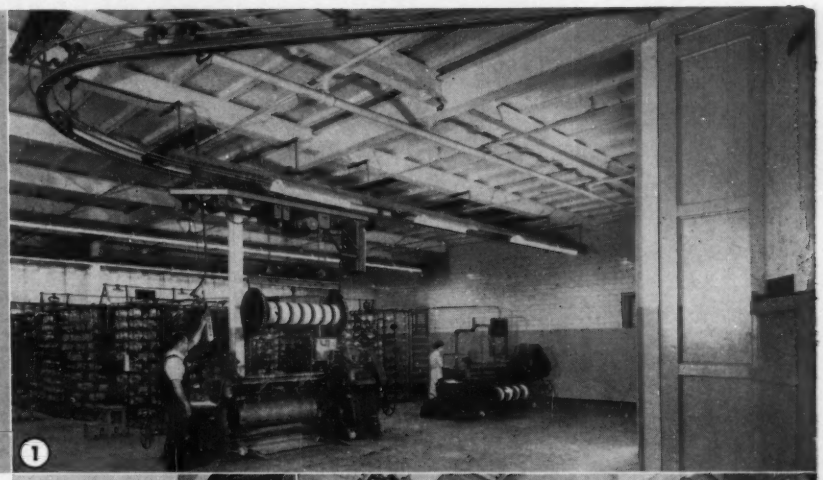
The Carborundum Co. has acquired the entire capital stock of Curtis Machine Corp., formerly a wholly owned subsidiary of Lincoln Park Industries, Inc.

Joseph Hyman has been elected vice-president and technical director of **Catalin Corp. of America.**

Charlotte Chemical Laboratories, Inc., has appointed Ralph E. Howell chief chemist and plant manager.

Joseph A. Lopez has joined the **Chemstrand Corp.** and has been as-

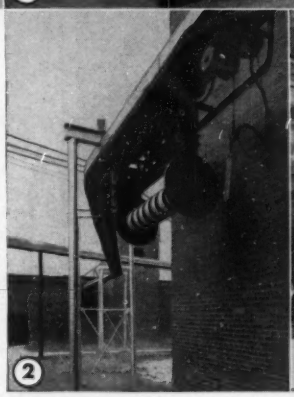


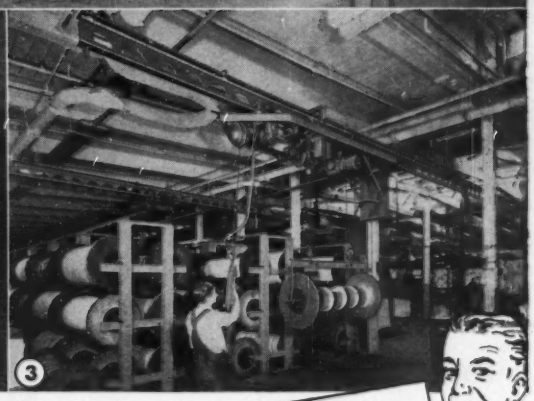


1 Beams are picked off these high speed warpers and dispatched on the overhead track directly to slashers automatically without anyone accompanying. Four warpers located to left are now in service instead of two when this photograph was taken.

2 Carrier traveling outside between buildings. Pointed guard on carrier opens building doors automatically.

3 Carrier stops automatically at this point between slashers and slasher beam storage. The beam of rayon is lowered by use of push-button pendant on carrier. A Cleveland Tramrail hand-propelled crane with electric hoist, in background, serves the efficient beam storage.





Simple Automatic Dispatch System

Because of efficiency made possible by a Cleveland Tramrail Automatic Dispatch System at the Mooresville Mills, Mooresville, N. C., for the delivery of warper beams from one building to slashers in another building, 80 man-hours are being saved weekly.

Beams are lifted by the Tramrail equipment off the warpers and delivered directly to the slashers or slasher beam storage. The same men operating other equipment can take care of the beam delivery. Practically no floor space is required for the automatic system because it operates on the ceiling where there is plenty of room. Inclement weather conditions never hold up beam delivery because workers never have to leave the buildings.

Most mills have costly handling jobs on which big savings can be made by use of Cleveland Tramrail automatic equipment. Why not let our engineers look through your plant and offer suggestions?

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BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
2876 East 287th Street, Wickliffe, Ohio

CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

REDUCE COLOR MIXING COSTS

WITH THE NEW

SHEAR-FLOW

GABB SPECIAL PRODUCTS

PATENT APPLIED FOR

INDUSTRIAL MIXER

- CUTS MIXING TIME TO 1/5th
- UNIFORMITY OF MIXTURE
- LOW MAINTENANCE COST
- QUICK CLEANING
- LESS SPILLAGE

CUT YOUR MIXING TIME AND COST.
MAIL THE COUPON NOW.

GABB SPECIAL PRODUCTS

Division of E. Horton & Son Co.

WINDSOR LOCKS, CONN.

☐ Have representative call for demonstration
☐ Send more information

Name-Position_____

Co & Address_____

SUPPLIERS News — WHAT THEY ARE DOING

signed to the nylon sales group. He will be located in New York.

A. T. Brainerd has retired after having been manager of the Chicago

Mr. Brainerd

office of **Ciba Co., Inc.**, since 1927.

American Resinous Chemicals Corp. has appointed James H. Christopher, Jr., as representative in New England.

Robert A. Smith has been named head of the newly formed spinning division, and William W. Bowman has been appointed head of the new staple technical sales division of the textile research department of **American Viscose Corp.** * * * John H. Kemp has been transferred from the converting relations department to the staple sales division of the corporation.

John W. Long, Jr., has been appointed sales representative in Geor-

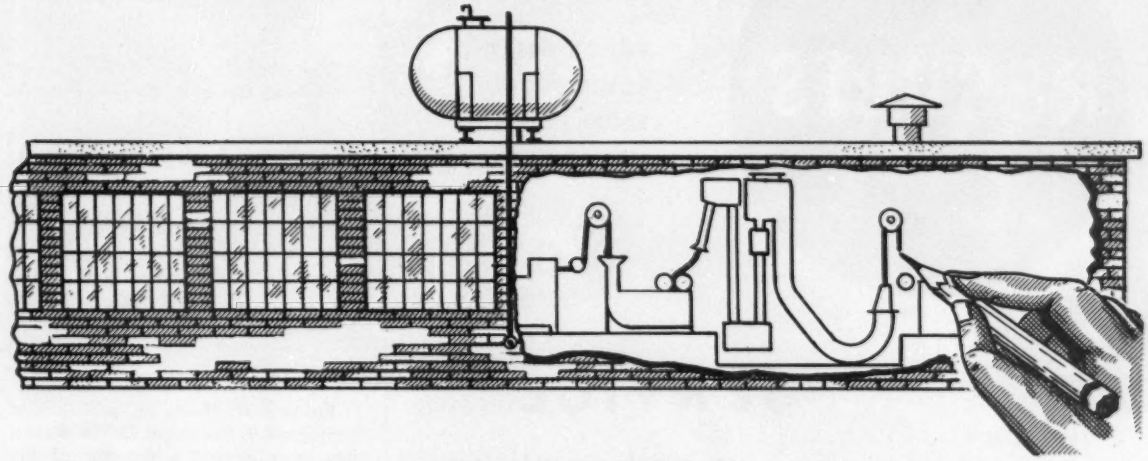
Mr. Long

gia, Alabama, and Tennessee for **Gastonia Roller, Flyer & Spindle Co.**

John B. Day, professor of industrial engineering at Georgia Tech, has won the 1954 **Clark Equipment Co.** award for the best entry in the materials handling essay contest sponsored jointly by Clark and the American Material Handling Society, Inc.

Construction has been started on a $500,000 shipping and receiving build-

Faster, more efficient bleaching starts with expert planning...



and here's how DU PONT can help you with its SPECIAL MODERNIZATION SERVICE

When you plan an expansion or modernization with Du Pont's help, you can be sure that every significant detail of your bleaching operation will be expertly evaluated.

With your production requirements in mind, experienced Du Pont technicians will survey your present equipment and bleaching method. Using this information as a base, a group of specialists will then work-up a detailed recommendation. It will show you how you can reach your new production goals, economically and without a waste of valuable floor space.

If new equipment or extensive modifications are needed, a proposal and layout will be presented for your consideration. Du Pont will even help you put your final plan into operation and guide you in the training of operators.

Here are some of the other services offered to you by Du Pont.

On-the-Spot Help with any immediate bleaching problem from Du Pont textile specialists servicing all important textile centers.

Technical Literature. A wealth of up-to-date information on all phases of textile bleaching is always available from Du Pont at your request.

Confidential Bleachery Survey to help you in maintaining or improving efficiency of your bleaching operation. A confidential report summarizes results and makes recommendations for your guidance.

Peroxide Bleaching Systems. More Du Pont peroxide bleaching systems are in use throughout the world than any other continuous system. We can show you how these processes can be adapted to *your* bleaching needs.

Bulk Storage Systems. Technical help with installation of equipment for buying and storing hydrogen peroxide in money-saving tank truck and tank car lots.

Top - Quality Hydrogen Peroxide. You're assured of prompt, dependable delivery of "Albone" hydrogen peroxide—in drums, tank trucks, and tank car lots.

For full details, call your nearest Du Pont representative or write to: E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Wilmington 98, Del.

CALL DU PONT FOR HYDROGEN PEROXIDE AND A *COMPLETE* TEXTILE BLEACHING SERVICE

ALBONE

REG. U.S. PAT. OFF.

HYDROGEN PEROXIDE

DU PONT

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BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

In Boston, call Hancock 6-1714; in Charlotte, Franklin 5-5561; in New York, Longacre 3-6440; in Philadelphia, Kingsley 5-1900.

OTHER DISTRICT SALES OFFICES TO SERVE YOU

Baltimore	Dallas *	New Orleans *
Chicago	Detroit	Oklahoma City *
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Export Division, Wilmington 98, Del.

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RESULTS

THAT'S WHAT YOU EXPECT FROM SIZING COMPOUND

SERVICE and EXPERIENCE

THAT'S WHAT YOU SHOULD GET FROM THE MANUFACTURER

FRANK G. NORTH, INC. GIVES YOU BOTH!

You *must* have good results from your sizing compound . . . the entire weaving operation depends on it! And you can depend on Frank G. North, Inc. for size that *produces* good results.

Frank G. North, Inc. is one of the largest manufacturers of sizing compounds, gums, waxes and other kindred products for weaving yarns in the nation. Our men can assist you in technical and practical matters relating to size. They have the experience and are anxious to be of service. Call on them today!

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SUPPLIERS News
WHAT THEY ARE DOING

ing at the Wickliffe, Ohio, plant of **Cleveland Crane & Engineering Co.**

The Colson Corp. has become a wholly owned subsidiary of F. L. Jacobs Co., Detroit automotive parts manufacturer. Colson's present management team will be retained. * * * New sales representatives appointed recently are J. J. Wortham, Texas branch manager; Roy Watson, Toledo, Ohio, branch sales office; and R. C. Browne, transferred from Cincinnati to Louisville.

Frederic W. Howe, Jr., president of **Crompton & Knowles Loom Works,** has been elected a director of the Worcester County (Mass.) Trust Co.

Walter E. Hildick, formerly vice-president of Textron, Inc., is now treasurer of **Curtis & Marble Machine Co.**

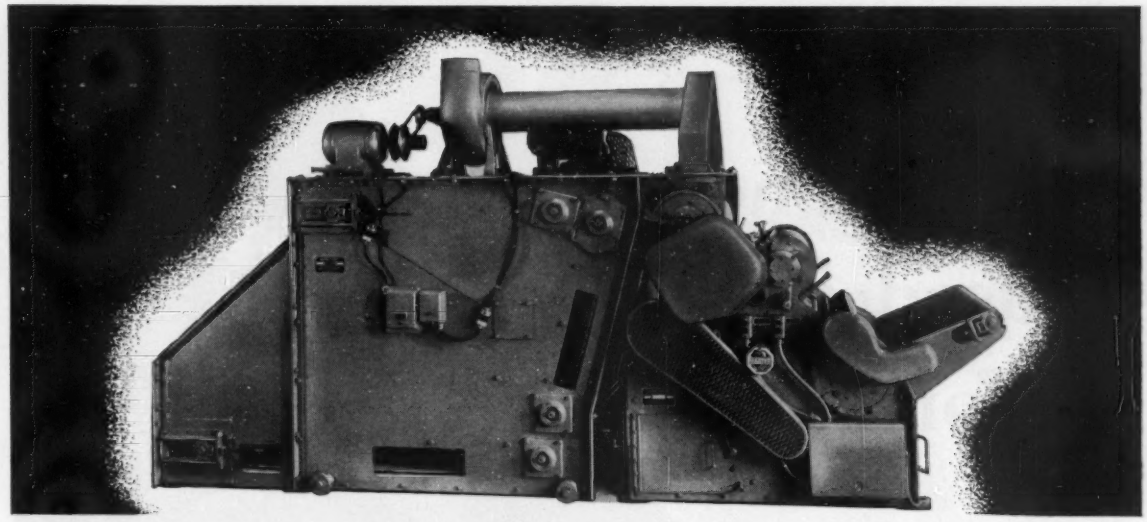
New officers at **Daniel Construction Co.:** Charles E. Daniel becomes chairman of the board, and is succeeded as president by R. Hugh Daniel, who is also treasurer; Carl G. Englund has been appointed vice-president and manager of the Greenville, S. C., office; J. A. Dantici becomes vice-president and manager of Daniel Construction Co. of Alabama, with offices in Birmingham; H. L. Longcrier is now vice-president and manager of Daniel Construction Co. of Virginia, a new division, with offices in Richmond; and Harry J. Stellman is manager of another new division, Daniel Construction Co. of Florida, with offices in Jacksonville.

Du Pont Co. has launched a new labeling program, the first the company has conducted on acetate. Color-sealed spun dyed yarn, standard acetate, crimpable Type C, and the novelty thick-and-thin yarn are each made readily identifiable by tags and labels.

Thomas A. Mitchell, Jr., has been named assistant to the director of advertising of **Eastman Chemical Products, Inc.**

Emmons Loom Harness Co. has appointed Elmer Scharf as Midwest representative, with headquarters in Milwaukee; and John F. Veach as representative for Virginia and east-

(Continued on page 181)



FOUR YEARS OF ACTUAL MILL PERFORMANCE DEVELOPED THE

NEW, IMPROVED MODEL 40B

RANDO-FEEDER | RANDO-WEBBER

NEW — **ENLARGED HOPPER** . . . full 50-cubic foot capacity.

NEW — **FLOOR APRON** gives even pressure of fiber on elevating apron. Speed readily adjustable.

NEW — **STRIPPER APRON** returns excess fibers to rear of hopper. No Feeler Plate or Start-Stop actions.

NEW — **ROTARY CONDENSER SCREEN BOX.**

IMPROVED — **SELECTIVE OUTPUT CONTROL** . . . unaffected by wide range in hopper level.

NEW USES — **BLENDING AND BLENDING LINES.**

COMPLETELY NEW — **DESIGN AND CONSTRUCTION** . . . same principles and functions.

IMPROVED — **PERFORMANCE** . . . product and output efficiency.

IMPROVED — **MAINTENANCE** . . . heavier motors and drives—readily accessible.

NEW — **DOUBLE DRIVE ROTARY CONDENSER** . . . interchangeable with Feeder Condenser . . . minimum spares needed.

NEW — **AIR CHAMBER** design for improved web uniformity. Large accessible clean-outs.

Rando-Feeders and Rando-Webbers have produced thousands of yards of random webs in around-the-clock production. Four years of proven performance. The same basic design today but new features . . . new versatility . . . improved performance. Available in 3 sizes: 40", 60" and 84". Inquiries are invited. Bulletin available.

TEXTILE DIVISION

CURLATOR

CORPORATION

EAST ROCHESTER, NEW YORK

a preference based on performance

After many years of service to the Southern textile industry, Standard Oil products continue to be *first* in point of popularity. There's only one answer. To stay first your product must be *dependable*, your service *superior*. Standard Oil was first to offer special lubricants for textile machinery, and for over half a century these have been constantly improved to meet changing needs. Wherever there are moving parts—from one end of your mill to the other there are special types of Standard Oil lubricants to afford maximum protection. If you would keep your equipment running at peak efficiency and low maintenance cost, use Standard Oil lubricants.

STANDARD OIL
LUBRICANTS

The combined facilities for research, testing and engineering behind Standard Oil Lubricants are unequalled.

Standard Oil Company
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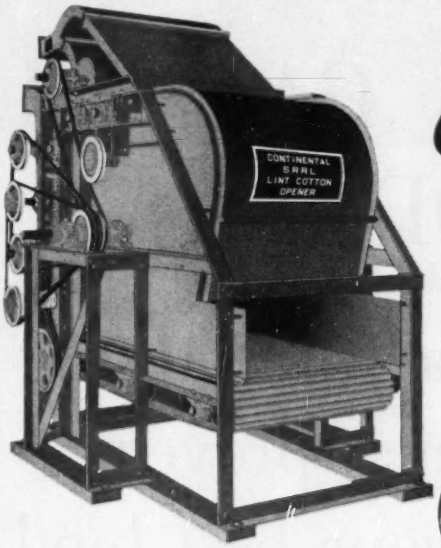
CGC

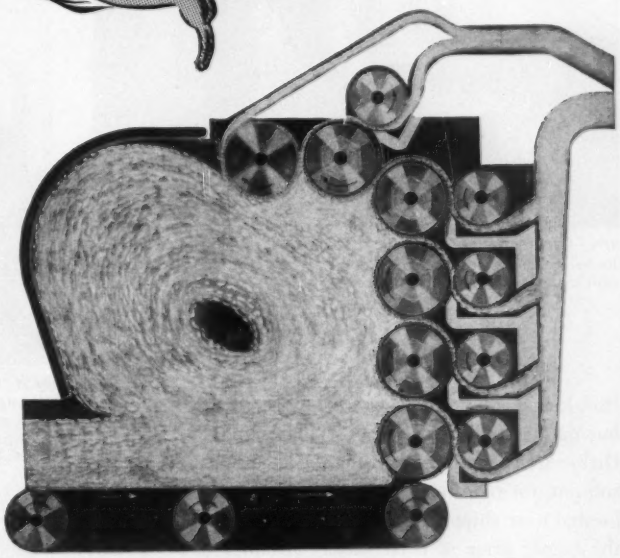


Continental's SRRL FIBRE OPENER

SAVES SPINNABLE FIBRE
PRODUCES BETTER YARNS
IMPROVES PROCESSING

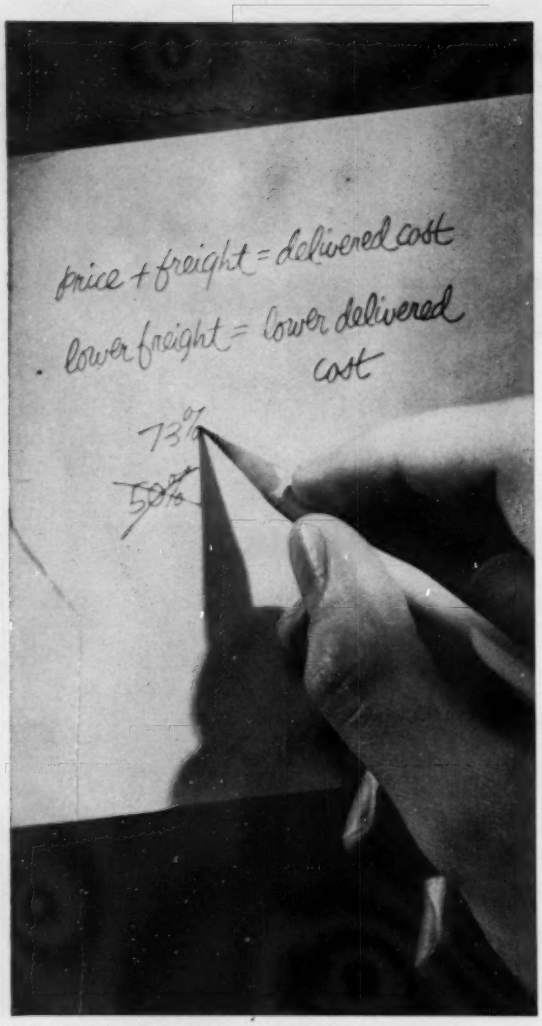
This revolutionary new type cotton opening machine was developed by the Southern Regional Research Laboratory and first manufactured commercially by Continental. Its prime function is to open and fluff cotton. Laboratory tests and mill experience have shown it does this at high capacity without damage to the fibre. While designed primarily to facilitate cleaning machine-harvested cotton through better opening, it is an excellent blender. This makes it also valuable for high grade cotton. Initial cost and operation are both low.

We invite you to write for Bulletin 208 which gives complete description



SECTIONAL VIEW

Continental GIN COMPANY
BIRMINGHAM, ALABAMA
ATLANTA • DALLAS • MEMPHIS



THE ECONOMIES OF 73% CAUSTIC SODA SOLUTION are no longer reserved for the largest users . . . lower shipping costs now make it the best form for you, too.

73% CAUSTIC SODA...

a little figuring may prove it your best buy!

FAST, DEPENDABLE DELIVERY of uniform 73% caustic solution is assured through use of Dow-owned tank cars. These 8,000- and 10,000-gallon cars are insulated, protectively lined, and fitted with nickel heating coils; unload from top or bottom by air pressure or pump. Frangible discs, protective plug cocks are two of the advanced safety features.

How long has it been since you have checked your caustic buying habits in the light of increasing cost factors? Higher freight rates are erasing the savings in 50% caustic solution for more and more users every day. Even users located near shipping points save money with 73%, since the higher price of even shorter distance hauls quickly wipes out the price difference between 73% and 50%.

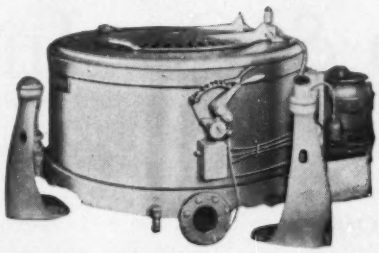
73% caustic must be diluted when received, but most caustic users dilute 50% solution, too. The cost of additional handling equipment for dilution, when fairly amortized, becomes a small item in comparison to your over-all cost reduction.

If you are still buying 50% caustic solution, discussion in your plant and consultation with our Alkali Technical Service is indicated. Perhaps the comprehensive Dow Caustic Soda Handbook can help you in preliminary discussion. Ask your Dow sales representative for your free copy or write to THE DOW CHEMICAL COMPANY, Dept. AL 363F, Midland, Michigan.

you can depend on DOW CHEMICALS DOW

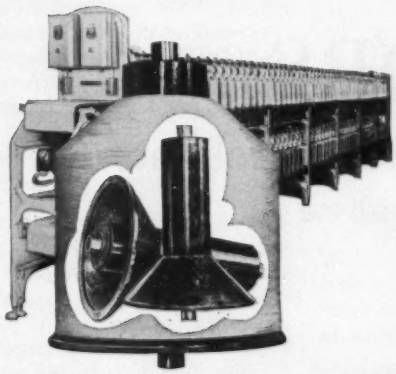
EVERY *Fletcher* MACHINE IS TOPS IN ITS FIELD

"WHIRLWIND" EXTRACTOR



The glass-smooth interior of the Fletcher "Whirlwind" extractor makes this versatile machine completely safe for all fabrics. Numerous outstanding operating features include: automatic hydraulic brake and timer; oversize motor to prevent overheating even under large loads; super-self balancing for safe operation. Several sizes available to fit all needs. Write for descriptive literature.

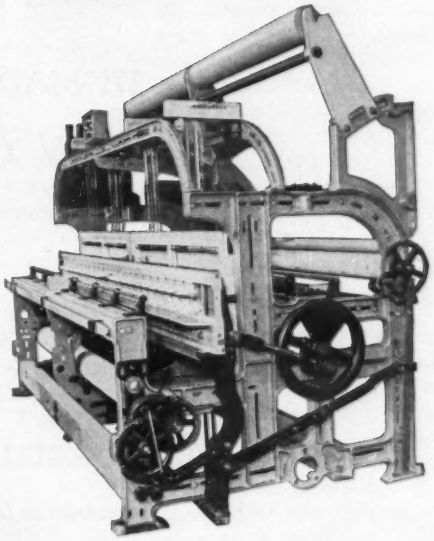
FLETCHER "KING SPOOL" TWISTER



Incorporating a completely new take-up package for overend delivery, without allowing the yarn to slough off, the "King-Spool" Twister is ideal for a wide variety of yarns, including low twist voile yarns and nylon, as well as high twist single and crepe, cable crepe, and combination yarn. The "King-Spool" features a fast traverse, eliminating overlaps and underwinds. It provides for a tail used in magazining.

For over a hundred years, Fletcher Works has been producing top quality machines for the textile industry. The "know-how" and experience which Fletcher has acquired during this period can provide valuable assistance to you. Why not call in a Fletcher engineer who will be glad to go over your particular problems and suggest ways in which they may be overcome . . . There's no obligation, of course.

NARROW FABRIC LOOMS



This semi-automatic, narrow fabric loom, one of Fletcher's latest developments provides for maximum production of top quality tape and ribbon. Its rugged construction permits it to operate safely at high speeds—an extremely versatile unit. For further information, request Bulletin 73.

FLETCHER WORKS

225 GLENWOOD AVE. PHILADELPHIA 40, PA. ESTABLISHED-1850

L. F. Dommerich & Co., Inc.

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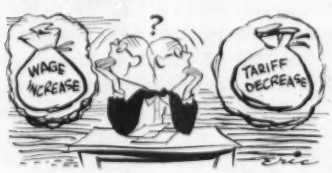
BUSINESS ESTABLISHED 1840

News IN BRIEF

Increase the Minimum Wage? According to recent talk in the industry, some textile leaders, if not actually advocating a raise in the minimum wage from 75 cents to 90 cents an hour, at least view with equanimity the possibility of such a move. The feeling among these leaders is that most of the



industry is already paying above the proposed level, and it would not hurt those firms paying below it to raise their levels. However, there is also agreement that if an increase in the minimum wage were coupled with a decrease in the tariff on textiles and textile products it would invite disaster for the entire industry.

New Polyester Fiber. A new polyester fiber, based on isophthalic acid, is reported to be under development by Standard Oil Co. of California. Physical and chemical properties of the fiber have not been announced, but they are probably similar to those of Dacron, which is based on terephthalic acid. Standard Oil does not plan to market the new fiber, as yet unnamed, but will sell the raw material produced by its subsidiary, Oronite Chemical Co.

Ethics for Government Contractors. A comprehensive statement of the principles involved in government contracting is contained in "The Government Contract—How to Use It Most Effectively in the Public Interest," a pamphlet recently published by the Machinery and Allied Products Institute. The pamphlet considers the following aspects of the government contract: basic philosophy, profit control, cost principles, audit, contract types, subcontractors, scheduling, and personnel. Copies are available at 50 cents each from MAPI, at 1200 Eighteenth St., N. W., Washington 6, D. C., with a discount for quantity orders.

Estimate of the 1955 Cotton Crop. Based on average yields per acre for the past five years, the National Bank of Commerce, Memphis, Tenn., makes a preliminary estimate that the 1955 cotton crop

will total 10,036,000 bales. The 1954 crop was 13,569,000 bales. With good weather, this year's crop might be as high as 11,500,000 bales and with poor weather as low as 9,500,000 bales.

Hosiery Express Rates Reduced. Railway Express rates on hosiery shipments from Colorado, Connecticut, Florida, Michigan, and Rhode Island have been reduced from first class to second class, resulting in a 25 per cent decrease, subject to a $1.80 minimum. All states having hosiery plants are now under the reduced rates.

Carpet Mills Change Wool Basis. Carpet mills are now buying their wool on a "clean wool fiber present basis" instead of on a "clean scoured basis." The new basis differs from the former one in that purchasers will no longer pay for the weight of burrs. Tests to determine yield and vegetable matter content will be made by the core method.

Problems in Copyrighting Textile Designs. Two problems confront a would-be design copyrighter under the Copyright Office's new ruling that textile designs may be registered. The first is the purely technical difficulty of complying with the Office's requirement that a copyright notice must appear on each repeat of the design, consisting of the word "Copyright" or its abbreviation "Copr.," or a symbol made up of a large "C" within a circle, together with the name of the firm or its recognized symbol. The only practical suggestion put forward so far is to include the markings in the selvage when the roller is engraved. The second difficulty lies in the moot question, "What precisely does the Copyright Office consider to be 'artistic'?" Decisions

rest on the judgment of Copyright Office officials; however, we believe that in general the word "artistic" would apply to designs other than plain geometrics.—*National Federation of Textiles Bulletin.*

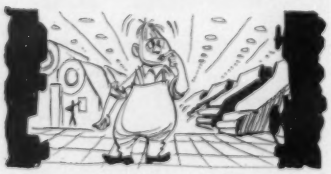
N. C. Safety Drive Pays Off. Indicative of the success of a special safety drive completed recently in North Carolina's cotton grey goods

News in Brief

plants is a 29 per cent reduction in the lost-time injury frequency rate. Over a two-year period, the rate was reduced from 11.1 to 7.9, according to an article by Lewis P. Sorrell in the December, 1954, issue of the "Safety News Letter—Textile Section." Because of these results, plus the fact that textile manufacturing in North Carolina is such a large part of the state's industry and has such a large influence on the industrial accident record, a special safety drive is now under way in the state's more than 400 cotton yarn plants.

Dyeing Orlon Tow. The Du Pont Co. has announced that the dyeing of Orlon in tow form is now being evaluated. The tow can be dyed either under pressure or at the boil in a raw stock machine equipped with a feed device. The colors obtained are said to be equal in fastness properties to those dyed by other methods.

Automation Means More Jobs. The National Association of Manufacturers in a new 24-page pamphlet, "Calling All Jobs," seeks to allay the fear of factory employees that automation will result in workerless plants. Automation actually describes a burgeoning machine age which is the workers'



best friend, according to the booklet. These so-called workerless plants are a myth, and will remain so in the future. The booklet cites historical examples to show that every improvement of the machine age which has increased productivity has increased the total number of jobs, thus proving that automation is the friend of the worker rather than his enemy.

Rayon from Bamboo. Production of rayon fiber from bamboo is reported by the Forest Research Institute, Bangalore, India. The rayon grade pulp from bamboo is said to be of fair quality.

Scarf Tariff Action An Omen? Some industry leaders see in President Eisenhower's refusal to accept Tariff Commission recommendation for increased duty on imports of screen printed scarves a portent of his possible future actions on tariff. These observers fear that he may disregard the findings of the Tariff Commission and the Committee for Reciprocity Information, as well as the pleas by affected industries, in considering tariffs on other textile products.

Scholarships at PTI. The Philadelphia Textile Institute will continue its National Scholarship Program this year by making available to eligible high school students twenty full-tuition regional scholarships valued at $1,800 each. Five scholarships will

be awarded in each of the following areas: Middle Atlantic, New England, Midwest, and the South. To be eligible, students must be in the top quarter of their high school class and show evidence of financial need. Final awards will be made through qualifying examinations. Applications should be filed before April 15, 1955, with Donald B. Partridge, Dean of Students, Philadelphia Textile Institute, School House Lane and Henry Avenue, Philadelphia 44, Pa.

CO_2 Cools Sewing Machine Needles. A series of tests made recently by Union Special Machine Co. demonstrates the possibility of cooling sewing machine needles with liquid carbon dioxide. The CO_2 is directed on the machine needles through a series of connections leading from a high pressure gas cylinder. In the company's research laboratories, three plies of canvas were sewed successfully at 4450 rpm using Orlon thread when the needles were cooled with CO_2. Without cooling, the thread fused and burned when two plies were sewed at the same speed. The company advises that it does not manufacture or sell the gas fittings and couplings, and does not necessarily recommend the method, but leaves it to each manufacturer to investigate for himself. Since the CO_2 is under a pressure of 900 psi, prospective users are warned against attempting to use common pipe and fittings.

NAHM "Sales-Training Caravan" on the Road. The committee

on women's hosiery of the National Association of Hosiery Manufacturers has completed plans for a hosiery caravan, a sales training presentation for salesgirls and buyers of women's stockings. The caravan is both instructing and entertaining sales personnel in 25 of the country's largest cities. A one-hour blend of entertainment, motivation, and sales training is designed to help hosiery sales girls to sell more hosiery.

How to Clean Cotton Carpets. The final report of a study of in-place cleaning of tufted cotton carpets has been released by the National Institute of Rug Cleaning and the Tufted Textile Manufacturers Association. Major conclusions of the study, which was conducted by NIRC and sponsored by TTMA, are that very dirty tufted cotton carpets can not be cleaned satisfactorily by even the best on-location methods developed to date, although they can usually be successfully cleaned in the plant; and that non-alkaline, non-greasy, dust-dry sodium alkyl-aryl sulfonate or sodium fatty alcohol sulfate synthetic detergents are the best cleaning agents.

Materials Handling — Systems, Not Gadgets. The 1955 National Materials Handling Exposition, to be held in Chicago May 16-20, will emphasize handling systems rather

$125,000 Needed to Restore Slater's Mill

The Old Slater Mill Association has announced the beginning of a fund raising campaign to provide funds for completing the restoration of the Old Slater Mill and for bringing it to life as a full-time museum. The sum of $125,000 is needed to achieve the objectives which have been planned.

A valuable collection of early textile machines and replicas has been gradually assembled by the Association over a period of years, since the initial restoration of the mill in 1925. The collection consists of machines and replicas of machines of the period of Slater (1768-1835) and will be put on exhibition at the time of opening the mill.

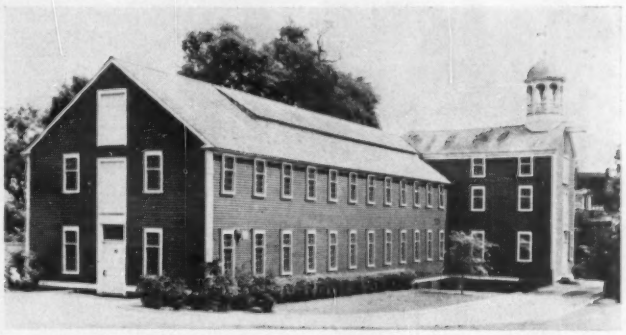
Money is needed to repair many of the machines, put a number into actual operation, and to build replicas of other machines which Slater built and used, as well as to complete the authentic and attractive early mill setting of the first cotton mill in America.

Of great interest will be the setting up of a working 18th century carding and spinning mill in the original location within the mill where Slater brought his machines in 1793. Since the construction of replicas is an expensive and time-consuming process, this objective will not be achieved until some time after the mill museum has been opened to the public. Other plans for the future include a working water wheel under the mill, with water piped from the river, and also a half-scale model of the small original mill, to be located in the old trench behind the mill building.

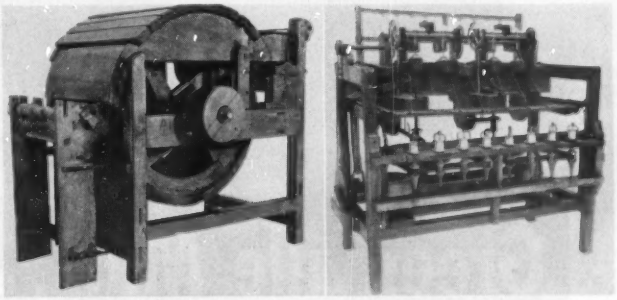
The full-time operation of the mill as a museum has been in the planning for some time, with its final stages being carried out during the past two and a half years. During this time a curator has been employed to do research, design an exhibition, and plan for the necessary utilities within the building. The board of directors and curator have worked quietly without publicity until this preliminary stage was completed.

Although the exact date has not been established, it is planned to open the mill sometime in 1955.

Those who are interested in helping to bring about the development of this landmark of American industry into a living museum are invited to mail their checks to Chester C. Foster, Treasurer, Old Slater Mill Association, P. O. Box 727, Pawtucket, R. I.



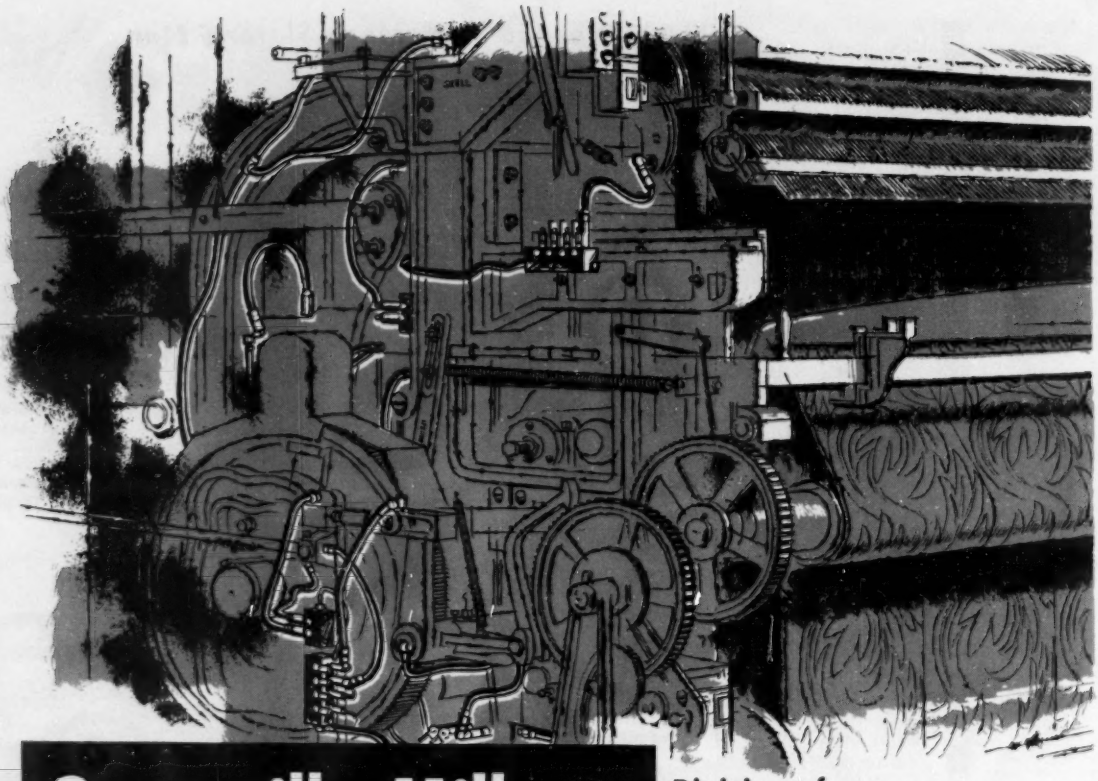
The Old Slater Mill in Pawtucket, R. I. Erected by Samuel Slater and his partners in 1793, the first successful cotton mill in America still stands, preserved and restored by the Old Slater Mill Association. It is to become a living museum of the early textile industry. The mill building includes later additions by Slater and others, but many of the original timbers are still in place as part of the framework of the present structure.



Left: Replica of Slater's finisher carding engine, which will be shown in the exhibition at the Old Slater Mill. The original machine, now in the Smithsonian Institution in Washington, was built by Slater in 1790, completely from memory, since the exportation of textile machines or their plans was forbidden by British law. **Right:** Replica of Sir Richard Arkwright's spinning frame of about 1775, the original of which is in the Science Museum, London, will also be displayed. Samuel Slater probably learned to spin on a machine similar to this during his boyhood in England.

than individual pieces of equipment, according to Clapp & Poliak, Inc., founders and producers of the show. More than 200 companies will have exhibitions, and a materials handling conference with the theme, "The Concept of Obsolescence," will be held concurrently with the exposition.

Trial Period for Spotted Cotton Standards Extended. At the request of some members of the cotton trade, the period of field trial for spotted cotton standard boxes has been extended by the USDA to April 15, 1956. This field trial covers proposed physical standards to replace the descriptive standards now used for Strict Middling Spotted, Middling Spotted, Strict



Greenville Mills, INC. Division of Alexander Smith, Inc.

Eliminates a "rugged"

Hand lubrication was a major maintenance factor on the high-speed twisters and rug looms at this vast, ultramodern Mississippi mill. Inadequate lubrication caused bearing wear and costly downtime for repairs. Excessive lubrication could, of course, spot and spoil materials in process.

Then Lincoln Automatic Centralized Lubrication was installed on equipment like the big, 12-foot Crompton & Knowles Axminster loom pictured above. Now, lubrication to each essential bearing is accurately time clock-controlled from a central pumping station. Lubrication takes place while the

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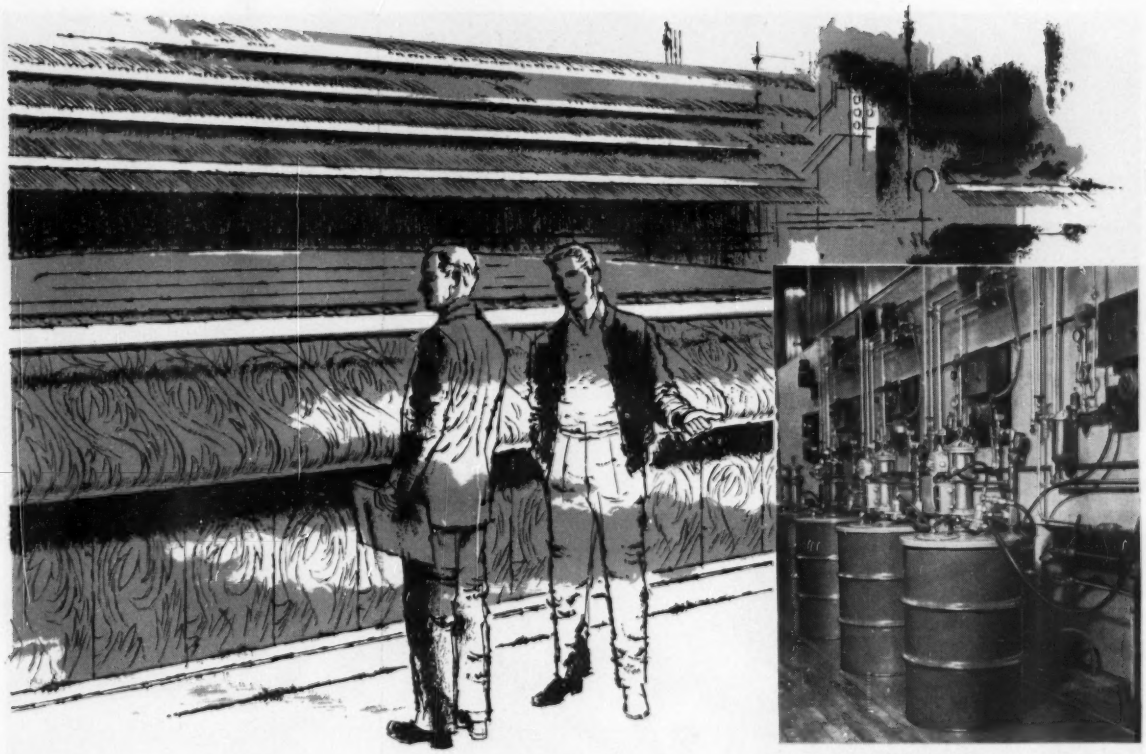
THE MOST RECOGNIZED NAME IN LUBRICATING EQUIPMENT



Illustrated, bank of time clock-controlled, power-operated lubricant pumps automatically, supplying System at predetermined intervals.

maintenance problem

WITH *Lincoln* CENTRALIZED LUBRICATION

equipment is in operation . . . automatically. Not only is maintenance time drastically reduced, but bearing failure, due to inadequate lubrication, is eliminated.

Today, in mills and plants of all kinds . . . throughout the U. S. . . . similar Lincoln Centralized Lubrication installations are slashing operating costs and speeding production. For information on how these Controlled Lubricant Application Systems can trim overhead in your plant, contact the Lincoln Distributor in your area. You'll find his name listed in the "Yellow Pages" of your phone book.

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"...without cost or obligation"

Another textile processing problem solved. He's heading back to Syracuse . . . home and family . . . and maybe a stretch of regular hours in the lab.

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A SOLVAY Technical Service man's job can take him any place where there's a customer in need of assistance in handling or using SOLVAY products.

If he's in the Textile Section, he may jump from a rayon plant in the south to a woolen mill in Maine or Minnesota that's having trouble. Yes, days and even nights "in the field" probing problems with the customer's technicians . . . and applying answers that the Textile Section's years of specialized experience and endless research have uncovered.

Seems like quite a job ". . . without cost or obligation". But, SOLVAY has always felt that its responsibility as a manufacturer extends into the plants of its customers—to assure them of peak efficiency from the chemicals that set the standard for the industry.

SOLVAY can supply these not-ordinarily-available services because its Technical Service has separate sections for different industries.

SODA ASH
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Ammonium Chloride • Chlorine • Monochlorobenzene • Para-dichlorobenzene • Ortho-dichlorobenzene
Chloroform • Methylene Chloride • Methyl Chloride • Carbon Tetrachloride

Low Middling Spotted, and Low Middling Spotted. Six-sample field trial boxes are available from the Cotton Division, Agricultural Marketing Service, USDA, Washington 25, D. C. Cost: $5.00 for shipment within continental U.S.A., $6.50 outside continental U.S.A., f.o.b. Washington.

Seal of Approval for Rugs. A "Seal of Cleanability" to identify rugs and carpets of proven cleanability has been established by the National Institute of Rug Cleaning. The seal will be awarded to floor coverings which pass tests for detergent and wetting effects, spot-

ting agent effects, fume fading, heating effects, flammability, dimensional changes, and for loss or change of color. Tests will be conducted in the NIRC laboratories at Silver Springs, Md., and in rug cleaning plants. It is expected that the first Seal of Cleanability awards will be made by April 1.

Improved Conveyor Belts. The textile industry, by providing wider and longer fabrics, is credited by Donald R. Scheu of the B. F. Goodrich Co. with important contribution toward recent improvements in conveyor belts. Continuous belting, up to 1,000 feet in length without transverse seams, is now being produced. New, resilient synthetic fibers, while less bulky than older fibers, result in stronger woven fabrics that make belts more resistant to impact shock.

Customers Must Be Informed of Advertising Allowances. A recent Federal Trade Commission decision involving an apparel manufacturer reiterates the provision of the Robinson-Patman Act that manufacturers who grant advertising allowances must so advise competitive accounts. FTC decision points up the requirements of the law that it is not sufficient to remain silent concerning the fact that all customers are entitled to the allowances that some are receiving; competitors must be informed of their entitlement.

Crepe Patent Upheld. The U. S. District Court in Washington has upheld the right of a Swiss inventor to patent a new process for manufacture of a "chemical crepe," in a ruling that the process was not covered in any previous patents. The crepe is produced by treatment of a blend of synthetic and

She's Wearing a Washable Cotton Skirt!

The printed cotton skirt worn by the pretty miss in the accompanying photo is the result of the joint efforts of a fabric finisher, a pleating company, and textile resin chemists who have developed a new technique that achieves durable pleating on the bias for cottons.

Durable to automatic washing machines, the "Everglaze"-finished skirt when hung up wet drips dry into fancy pleating without ironing, according to the announcement.

To give cotton the stay-in pleating qualities, Joseph Bancroft & Sons Co. worked with Monsanto Chemical Co. and with the Ideal Pleating Co. to perfect the process which is said to involve not only the right Resloom resin formula to impregnate the cotton, but also the right amount of heat and curing time to hold the pleats. The resin bath, partial drying, then pleating and finally curing all go into the quality controlled process that will keep these durable pleatings defined to their original crispness all summer long.

A Way to Cut Administrative Overhead

Employers need not keep records of the starting and stopping time of office employees who have fixed daily and weekly hours if certain conditions are met, according to information from the U. S. Department of Labor.

Essentially the conditions are:

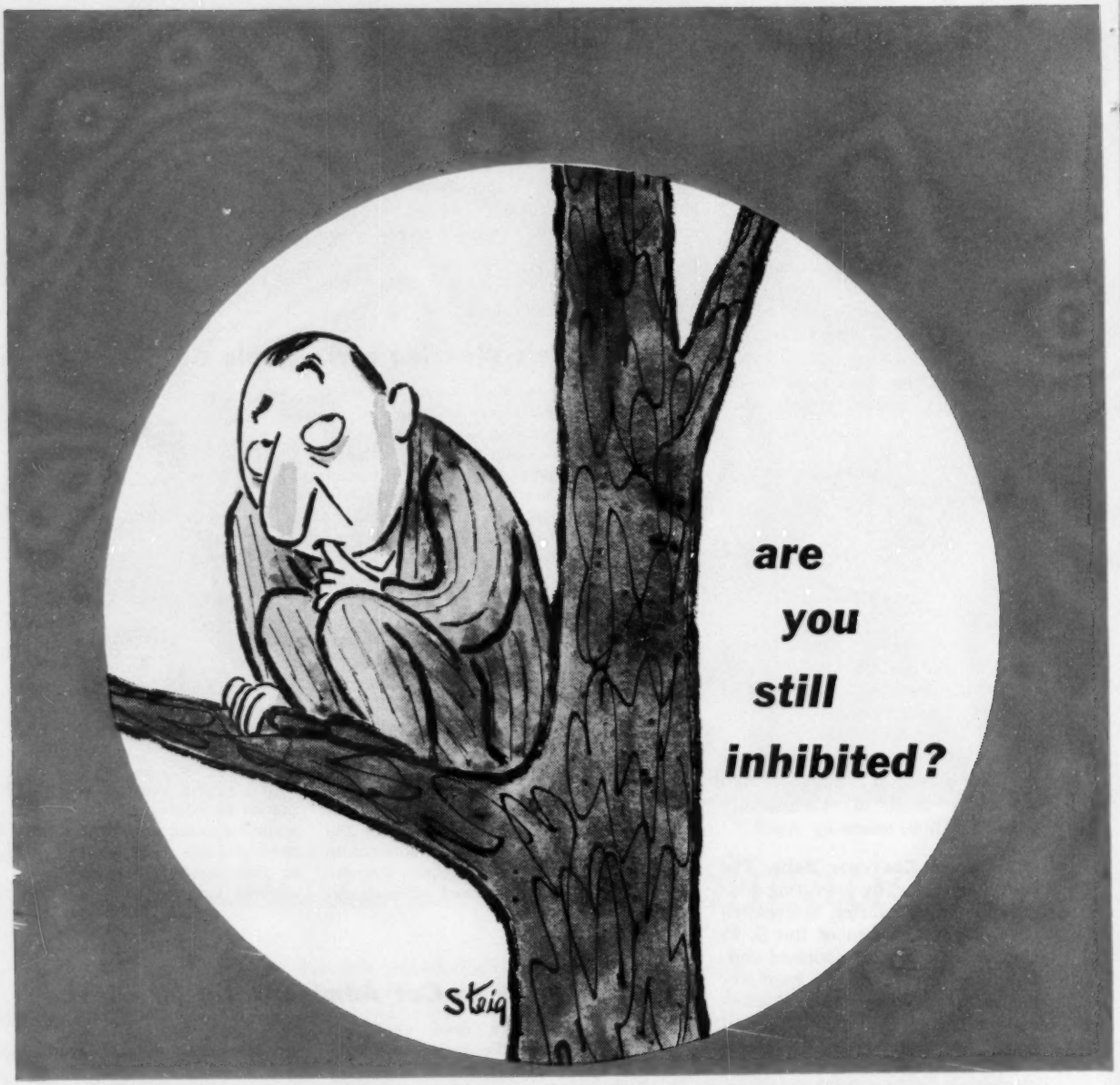
1. The record on each employee must contain an indication of the exact schedule of hours per day and hours per week that he is expected to work;

2. The payroll (or other) records must indicate for each employee or for each group of employees that the schedule was adhered to.

3. When employees work more or fewer hours than their schedule calls for, their records must be supplemented by showing the exact number of hours worked each day and each week.

No particular order or form of records is required, so employers may set up any system they choose so long as the records contain the information specified in the regulations and are accurate.

It is emphasized that this policy is applicable only where hours of work are actually fixed and it is unusual for the employee to work either more or fewer than the scheduled hours. If this is the case, the policy can also be applied to production workers.



WILL PUT NEW LIFE IN YOUR PRODUCT

THE NEW Nylon Staple by IRC can transform a "taboo" into a "can do". Because it can create entirely new effects, it offers creative millmen the opportunity to think beyond the present barriers on product development and improvement.

With the NEW brighter-than-bright Nylon Staple by IRC you can achieve sheen without shine . . . a quicker, deeper dye with more absorbency. It has a new crimp to give a new effect. You can get new resistance to abrasion . . . better spring-back . . . and new strength with finer yarns.

Best of all, you can work with greater economy and achieve higher quality. You can expect the NEW Nylon Staple by IRC to give you the same cost-cutting uniformity and performance that industry has come to expect of IRC rayon yarns.

. . BRING NEW PRODUCTS TO LIFE!

- NEW LUSTER • NEW DYEABILITY
- NEW CRIMP • NEW ABRASION CHARACTERISTICS
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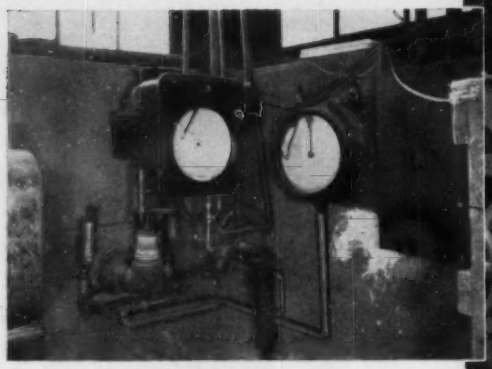
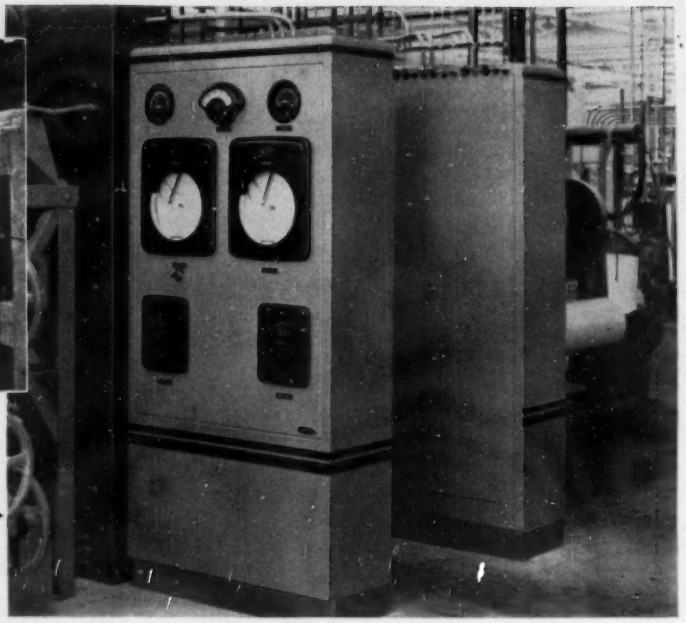


This is part of an old-fashioned installation which lacks the convenience and efficiency of modern instrumentation.

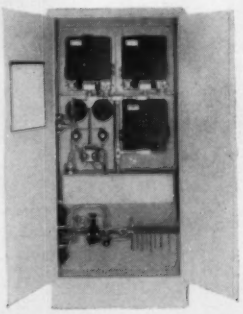


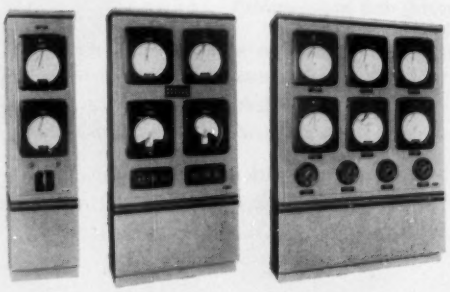
Compare this centralized Foxboro Cabinet installation of similar instrumentation, which saves time for the operator, makes his work more efficient, and gives maximum protection to the precision instruments required for his process.

See what a difference FOXBORO cabinet-mounting can make!

These photos show at a glance how much more efficient and attractive your instrument installation can be if it's integrated and centralized in a Foxboro Cabinet. Not only are the instruments protected from dust and process "atmospheres", but they're conveniently grouped together for more efficient use and easier maintenance. Those "endless steps" of the operator are a thing of the past!

Foxboro will supply a cabinet (or cabinets) to house and protect any number of existing instruments and related devices. Or your order for new instruments can be shipped to you already mounted in cabinets, completely piped and wired, needing only simple power and process connections to be put into operation. Write for illustrated and informative Bulletin 413.





Foxboro Cabinets are available in three standard sizes for 2, 4, or 6 conventional-size instruments (or equivalent). For mounting more than 6 instruments, Foxboro Sectional Cabinets (with open ends) are used . . . bolted together to form desired length. End sections have one closed side to form dust-tight enclosure. Exclusive insert-type panel construction permits easy conversion when process changes so require.

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PROCESS CONTROL CABINETS

FACTORIES IN THE UNITED STATES, CANADA, AND ENGLAND

cellulosic fibers with caustic soda, causing the cellulosic fibers to shrink and producing a crepe effect in the fabric.

Increased Blowout Protection. A two-ply nylon inner shield just announced by the Goodyear Tire and Rubber Co. for use with tubeless tires is claimed to give increased blowout protection. The shield acts as a diaphragm to form an inner air chamber, by sealing itself against the rim and tire beads. In case of a blowout, the inner shield will release air slowly enough to permit the driver to bring the car to a safe stop.

Employer Must Give Wage Rates to Union. The U. S. Court of Appeals for the Fourth Circuit has upheld a National Labor Relations Board order directing Whitin Machine Works to furnish the CIO Steelworkers' Union with the rates paid individual employees. Whitin had previously given the union a list of employees, their job categories, dates of hiring, list of the firm's hourly wage rates and rate ranges, and the number of employees in each rate range, but the union still wanted a list showing each individual's rate.

Nylon in Carpets. In 1953, only one mill was marketing nylon carpets, but by the end of 1954 some 30 carpet manufacturers had adopted nylon as a basic fiber, according to an announcement by the Du Pont Co. Du Pont representatives attribute the increase to "the widely felt need for a reliable domestic supply of carpeting fiber of uniform, controlled quality and stable price."

New Method for Discharge Printing Acetate. A new method for producing discharge effects on acetate was recently announced by the Textile Colors Division of Interchemical Corp. Selected Aridye colors and specially formulated Clears are employed for producing the discharge effects on acetate grounds dyed with dischargeable acetate dyes. The same results can be obtained on rayon and cotton by a modification of the method, it is claimed.

MERCHANDISING NOTES

American Standards Association's Committee L25 on "all textiles" has taken initial steps in setting up end-use performance standards for all fabrics used in apparel. The committee claims that the standards are not intended as a lever for use by retailers to make manufacturers satisfy consumer demands, but rather to provide a common language and understanding for all concerned.

National Better Business Bureau, Inc. reports receipt of numerous complaints that mail order companies have advertised "new towels . . . . 12 for $1.00 . . . . large size . . . . assorted colors . . . . new . . . . not seconds . . . . supply limited," or have offered similar come-ons. The towels received

were mistaken by the complainants for paper, without hems, borders, or woven threads. The product is actually nonwoven rayon. The chief offender has signed a stipulation with the Federal Trade Commission agreeing to disclose in all advertising that the towels he sells are of nonwoven rayon, and to stop using misleading statements.

Amerotron Corp. includes a Shetland-type fabric of 65 per cent Australian wool and 35 per cent Orlon in its fall, 1955, line of fabrics for men's suits, coats, and sportswear.

Burlington Mills Corp. has introduced a dull Dacron tricot lingerie fabric called "Fantastique." The fabric is knitted on 32-gauge tricot machines, and current production is about 250,000 square yards per month.

M. Lowenstein & Sons are showing a line of no-ironing flat cotton prints, treated with the company's Drynu process, for spring and summer promotion, both as yard goods and made up into dresses, sportswear, and robes.

National Retail Dry Goods Association, through William M. Yorio, chairman of its Piece Goods Executive Committee, has called on textile mills and converters to use more consumer advertising to help retailers in merchandising the new finishes and blended fabrics. According to Mr. Yorio, mills and converters "can pre-sell and condition the home sewers by budgeting part of their advertising dollars where it would be most beneficial to the fabric departments. This can be achieved by advertising

in the mediums which reach the natural audience for the product."

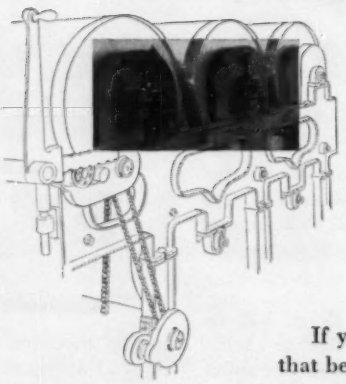
Neuss, Hesslein and Kempton, of Todmorden, Lancashire, England, are making plans to merchandise in the United States their crease-resistant cotton fabric, "Super Tremendo," which reportedly has won considerable consumer acceptance in England.

Silk Centre, England's silk association, has developed a decorative device embodying the word "silk," for use on goods made entirely of silk and handled in Britain, whether imported or of British manufacture.

Wellington Sears have introduced Interlon, a printed and texture-printed nonwoven fabric of nylon and rayon bonded with a synthetic latex. The fabric is produced by West Point Mfg. Co.'s Lantuck Division.

Solution to a *Housing* Problem...

FAFNIR *ECONOMY PACKAGE



*FAFNIR ECONOMY PACKAGE (1) compact, sturdy housing (2) Wide Inner Ring Ball Bearing with (3) Self-Locking Collar. (4) Mechani-Seals keep lubricant in — contaminants out. Typical installation at left.

If you make machinery and equipment, you know that bearings must be housed . . . and housings are often complicated and costly. Wherever Fafnir "Economy Packages" can be used, however, there is no housing problem . . . nor any problem of providing a lubricating system either.

Fafnir "Economy Packages" include both housings and provision for lubrication. What's more they offer all the advantages of ball bearing performance — and they're easy to install. Think of the savings represented in the illustrated textile slasher equipped with twenty Fafnir "Economy Packages".

You can get Fafnir "Economy Packages" in shapes and sizes to fit an amazing variety of machines and equipment . . . another example of the Fafnir "attitude and aptitude" for supplying the right ball bearing to fit the need. The Fafnir Bearing Company, New Britain, Conn.

FAFNIR

BALL BEARINGS

MOST COMPLETE LINE IN AMERICA

AN EXECUTIVE Views

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

Two Very Important Meetings

THE CONVENTION season is upon us again, and two big events are in store for the month of March. One is the annual meeting of the Textile Research Institute in New York. Mills that are looking far into the future support the Institute, and from the way things have been in the last couple of years, that support of research could well have been started last century.

The other big event is the annual convention of the American Cotton Manufacturers Institute in Palm Beach, Fla., March 31-April 2. ACMI members seem to have a liking for Palm Beach because they have met there several times during recent years. Perhaps at no other meeting are so many top-flight textile executives in attendance and, if for no other reason than this, we would enjoy attending because such a meeting gives us the opportunity of exchanging ideas, viewpoints, and experiences with other mill men.

However, the 1955 ACMI meeting is especially significant because consideration will be given to a number of important questions, such as the tariff fight and the possibility of bringing about some sort of merger between ACMI and one or two trade associations representing other branches of the textile industry. We hope we shall see you at Palm Beach.

Lo, the Poor Indian!

Back in another generation, the late Will Rogers used to come out with some pretty intelligent statements. As a matter of fact, we used to feel that what Will Rogers had to say was generally based on a better brand of brain power than might be found in many of the marble halls of the nation's capitol.

As we recall, it was Will who frequently opined that when American diplomats tried to horse-trade with their counterparts from other nations that about all they had left after the sessions were over were their striped pants. He seemed to have the idea that American traders were babes in the woods when it came to international intrigue and politics. If he were alive today, we have the feeling that he might be even more certain that this is a true and correct evaluation.

Readers of this column will recall that we have mentioned once or twice before that whenever representatives of the United States go to a tariff-negotiating session they seem to be falling all over themselves to list the various portions of America they are planning to give away. We have expressed the suspicion that this "giving away" is mostly an American trait and that very little "giving" has been done by foreign nations, or is going to be done by them at any time in the foreseeable future.

Comes now an Associated Press story from New Delhi, India, to the effect that the Indian Government has announced, "that the protective tariffs on the imports of cotton, textile machinery, and various other goods will be continued for the next three years."

The standard of living in India may not approach that of Hoboken, New Rochelle, or even Washington, D. C., but certainly the standard of intelligence in India might be considered at least on a par with that of America. You do not see the Indian negotiators coming in and laying on the bargaining table a list of items they are going to *give*.

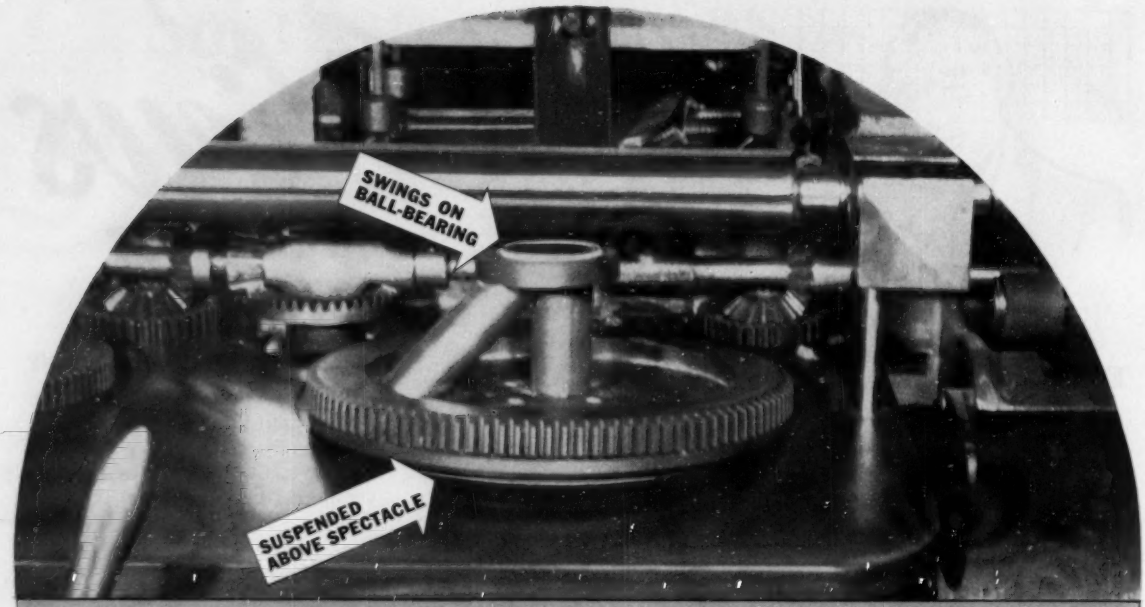
On the contrary, they announce ahead of time that anyone expecting to get anything out of their country is going to have to be prepared to offer something in return. Only the superior intellect of the American people would chart a course whereby we would, like the Greeks, bear gifts—but this time it looks as though the gift may be a sizeable slice of American industry.

Taxes, Taxes, Taxes

To get away from the tariff question, however, it might be in order to remind you that from all appearances at this writing, Congress is not going to permit the corporate income tax to take the drop it was scheduled to take on April 1. The law has provided that the present 52% rate on corporate earnings would drop to 47% April 1, but all signs point to the fact that the higher rate will be continued. This points up the old adage that once a tax is levied it is difficult, and sometimes impossible, to get it removed.

From the standpoint of the textile industry, however, perhaps this does not mean too much because you cannot tax that which does not exist. Textile earnings have been so low for the last several years that whether you take 52% of zero or 47% of zero, you still come out with the same answer.

The congressional winds also



Ideal Ball-Bearing Anti-Friction Coiler Tube Mechanism*

This Coiler Tube

Has No Speed Limit
Never Needs Oil
Eliminates Static

It Swings

This Ideal Coiler Tube Mechanism swings lightly and freely by means of a ball-bearing at the top, instead of dragging heavily on the spectacle surface. It will run silently at any speed you wish to attain.

Never Needs Oil or Grease

Because the bottom of this Ideal Coiler Tube Mechanism is suspended above the spectacle surface, it never needs oil or grease. Neither does the ball-bearing, which is permanently sealed and lubricated. It is impossible to cause oil spots with this mechanism.

Eliminates Static

The Ideal Coiler Tube Mechanism is made entirely of phenolic fibre which never generates static. This feature alone is of tremendous value to mills which draft synthetics or blends.

This new mechanism is available for cards, drawing, and combers . . . for all size cans. Get full information about it today.

*Patents Pending

Ideal Industries, Inc.
Bessemer City, N. C.

seem to indicate that the excise taxes on gasoline, tobacco, liquor, automobiles, etc., will continue at their present rate, which will be bad news for those who drive, smoke, or drink. We do not wish to be cynical, but we would assume that this would include practically the entire adult population of the forty-eight states.

Besides taxes, the textile industry is likely to have plenty to worry about during the current congressional session. We said a few months ago that we thought the drive for an increase in the minimum wage would crystallize at around $1.00, but present indications are that 90¢ will be the goal. This is presently 75¢.

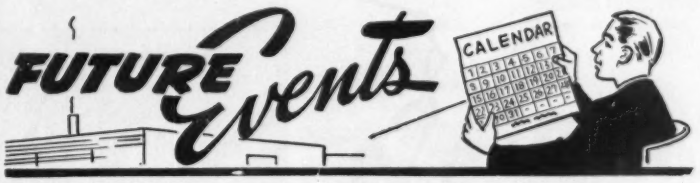
If the Secretary of Labor has his way, the Taft-Hartley Act will be amended to eliminate the state right-to-work bills which are now on the law books in some fifteen to twenty states. Tie these specific points in with proposed legislation of a more general nature and you can see that regardless of whether or not they use the two-platoon system, this is going to prove to be an interesting game.

Uncle Santa Claus

We indicated earlier in this article that people in foreign countries can be pretty certain that they are going to get *something* from the United States, although at times they may be in doubt as to just what they are going to get. A case in point is the recent announcement of a spokesman for the Commerce Ministry of India, in which he stated that India and the United States would shortly sign an agreement to purchase 120,000 bales of American long staple cotton. The Indian spokesman was quoted as saying that this cotton was needed "to produce superior, finer varieties of cloth."

The point that interested us particularly about this statement was the additional comment that this purchase would amount to $20

(Continued on page 201)



MARCH

Mar. 4—Meeting Niagara Frontier Section AATCC, Hamilton, Ontario, Canada.

Mar. 4—Meeting, Philadelphia Section AATCC, Pen-Sherwood Hotel, Philadelphia, Pa.

Mar. 10-11—Annual meeting, Textile Research Institute, Hotel Commodore, New York, N. Y.

Mar. 17-18—Spring meeting Southern Textile Methods and Standards Association, Clemson House, Clemson, S. C.

Mar. 18—Meeting Western New England Section AATCC, Rapp's Restaurant, Shelton, Conn.

Mar. 18—Meeting, New York Section AATCC, Kohler's Swiss Chalet, Rochelle Park, N. J.

Mar. 31-April 1—Southern Municipal and Industrial Waste Conference, College of Engineering, Duke University, Durham, N. C.

Mar. 31-Apr. 2—Annual meeting, American Cotton Manufacturers Institute, Palm Beach (Fla.) Biltmore Hotel.

APRIL

April 13-15—50th anniversary meeting, Alabama Cotton Manufacturers Association, Hotel Buena Vista, Biloxi, Miss.

April 14-16—Annual convention Phi Psi Textile Fraternity, Baconsfield Hotel, Brookline, Mass.

April 15—Meeting, Hudson-Mohawk Section AATCC, Jack's Restaurant, Albany, N. Y.

April 16—Meeting, Midwest Section AATCC, Netherlands Plaza, Cincinnati, Ohio.

April 19-20—37th annual meeting, National Knitted Outerwear Association, Hotel Waldorf-Astoria, New York, N. Y.

April 22—Meeting, Niagara Frontier Section AATCC, Buffalo, N. Y.

April 23—Spring meeting, Textile Operating Executives of Georgia, Georgia Institute of Technology, Atlanta, Ga. Carding and spinning.

April 25—Annual meeting, Underwear Institute, Haddon Hall, Atlantic City, N. J.

April 25—Annual meeting, National Association of Hosiery Manufacturers, Claridge Hotel, Atlantic City, N. J.

April 25-26—Hosiery Industry Conference, Claridge Hotel, Atlantic City, N. J.

April 25-29—Knitting Arts Exhibition, sponsored by N.A.H.M., N. K. O. A., and Underwear Institute, Atlantic City (N. J.) Auditorium.

April 27-29—55th anniversary convention, Cotton Manufacturers Association of Georgia, Boca Raton Hotel & Club, Boca Raton, Fla.

April 28-29—10th Time Study and Methods Conference, sponsored by the Society for Advancement of Management, Hotel Statler, New York City.

April 29-30—31st annual convention Delta Kappa Phi Fraternity of America Inc., Lowell, Mass. Host, Beta Chapter of Lowell Technological Institute.

April 30—Meeting Piedmont Section AATCC, Robert E. Lee Hotel, Winston-Salem, N. C.

MAY

May 4-5—Spring meeting, The Fiber Society, Alabama Polytechnic Institute, School of Textile Technology, Auburn, Ala.

May 12-14—Annual outing Carolina Yarn Association.

May 16-20—Materials Handling Exposition, International Amphitheatre, Chicago, Ill.

May 17-20—40th annual conference, Textile Institute, London, England.

May 20—Meeting, Washington Section AATCC, Washington, D. C.

JUNE

June 16-18—Annual convention, Southern Textile Association, Mayview Manor, Blowing Rock, N. C.

June 25-July 10—International Textile Exhibition, Brussels, Belgium.

June 26-July 1—Annual meeting, American Society for Testing Materials, Chalfonte-Haddon Hall, Atlantic City, N. J.

June 27-29—International Congress of Scientific Research Applied to the Textile Industry, Brussels, Belgium.

SEPTEMBER

Sept. 8-9—Fall meeting, The Fiber Society, Massachusetts Institute of Technology, Cambridge, Mass.

Sept. 20-21—The Chemical Finishing Conference sponsored by the National Cotton Council of America, Chalfonte-Haddon Hall, Atlantic City, N. J.

Sept. 22-25—National convention, AATCC, Chalfonte-Haddon Hall, Atlantic City, N. J.

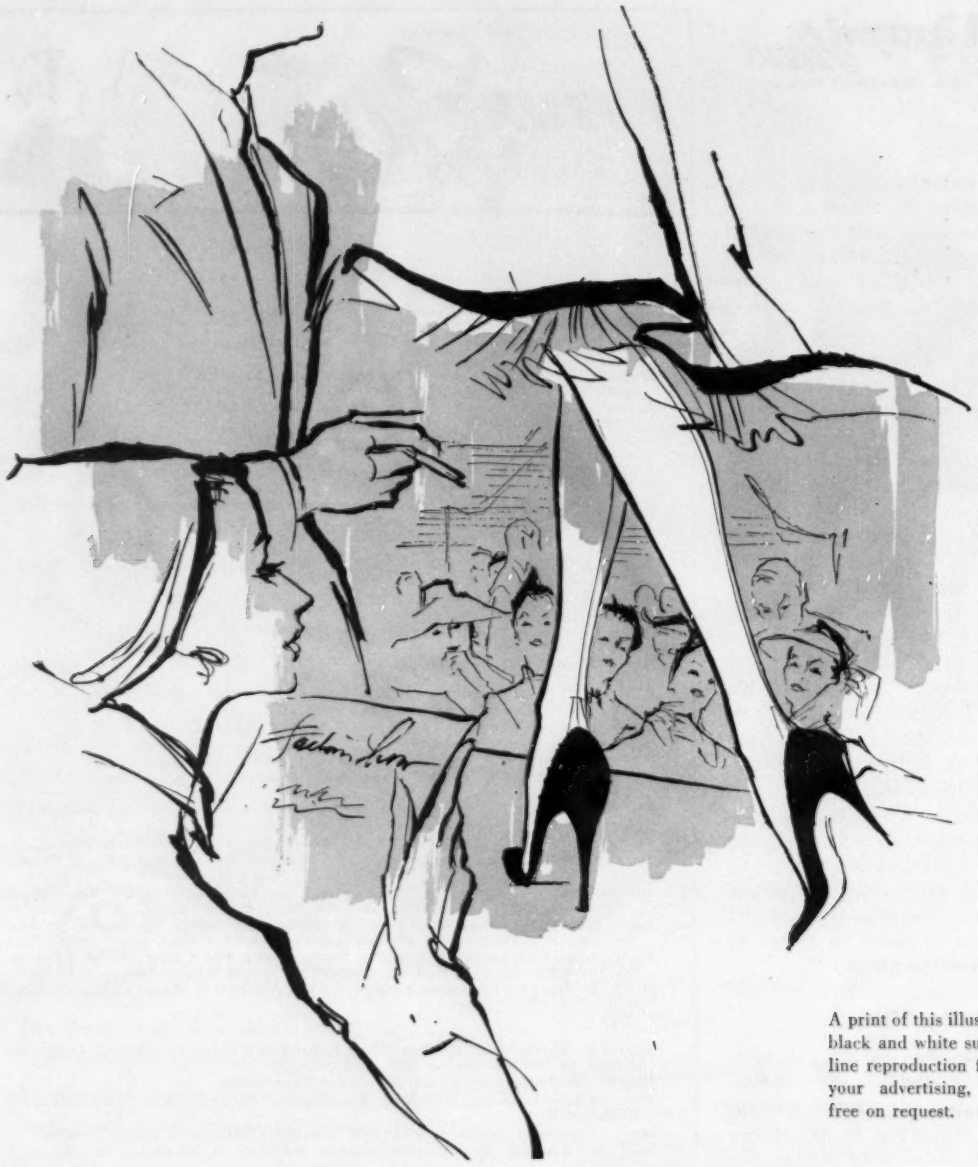
Sept. 29-30—101st annual meeting of National Association of Cotton Manufacturers and 3rd annual meeting of Northern Textile Association, Wentworth-by-the-Sea, Portsmouth, N. H.

OCTOBER

Oct. 13-14—49th annual meeting North Carolina Textile Manufacturers Association, Carolina Hotel, Pinehurst, N. C.

Oct. 17-19—Fall meeting, National Council for Textile Education, The Larches, Hopedale, Mass. Hosts: American Textile Machinery Association.

Oct. 27-28—Annual convention, The Quartermaster Association, Conrad Hilton Hotel Chicago, Ill.



A print of this illustration in black and white suitable for line reproduction for use in your advertising, available free on request.

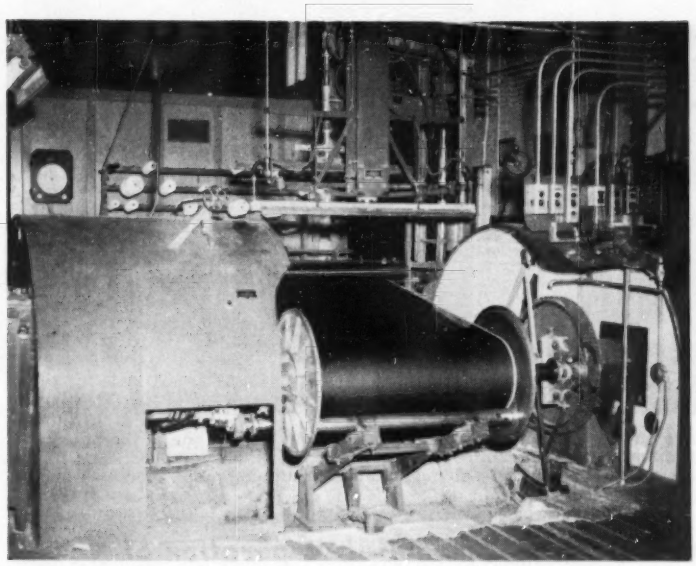
A FACT: In 1953, 42 per cent of the full-fashioned hosiery machinery in place in the United States had been built prior to World War II. (Textile Machine Works, 1953 Statistical Survey)

In the hosiery industry, the one unyielding force is obsolescence. Compare the production of your least efficient machinery with a "Reading 100" Full-Fashioned Knitting Machine—in courses per minute, dozens per hour, salability of fabric. The "Reading 100" is not only a fast multiple-section machine, but it is also a reliable one . . . speed without interruption. And with every Reading Machine you get the benefit of Textile Machine Works' engineering help, service and technical experience. Let us present the "Reading 100" story in your office, at your convenience. Write us today.

TEXTILE MACHINE WORKS, READING, PENNA.

The "READING 100"
Full-Fashioned Knitting Machine

30 Sections 51, 60, 66 Gauge



FLYING DOFF unit at front of slasher consists principally of a central rotary winding element, controls, clamping head, cutting head, and presser roll.

Non-Stop Slashing

from set to set with automatic doffing device

Staff Prepared
EXCLUSIVE

IN OPERATION at Woods Manufacturing Co., Empire Cotton Division, Welland, Ontario, since September 1954 is a slasher doffer that was designed and installed by Unistel Textile Machine Corp., Port Chester, N. Y. The doffer is an automatic device which severs the full warp and starts winding on a new loom beam without any stop or lag in yards-per-minute delivery.

The unit, installed and synchronized at the mill on its color-slasher in a five-day period, has by means of its continuously operating nature eliminated high point color and size pick up variations from the beginning to the end of a set of warps; the result is improved slasher and loom efficiencies, and reduced waste.

Color Slashing. This unit, in operation at Woods for several years in vat and sulfur dyeing cotton warps, is currently turning out 2000-end 9s/1 and 2800-end 12s/1 cotton warps sulfur dyed for use in denims. It consists of a creel for section beams, a 3-bowl padder, a steamer, an 8-compartment unit for soaping and washing, a dryer, a slasher, and the "Flying Doff" wind-up. All of these operations are placed in a straight line and are performed continuously.

The doffer, operation of which is described in the accompanying box, is winding up at 25 yards per minute. The doffing, done while the machine maintains a constant production speed, takes from 1 to 4½ seconds, depending on the surface speed of the warp. The central rotating unit is reversible so that hand doffing can be performed if required; clutching and de-clutching can also be manually

How the "Flying Doff" Unit Operates

(The editors prefer to show by sketches the operation of a device such as the flying doff. However, under the patent laws it is possible that publication of even a simple sketch may prevent granting of a patent on this device; the patent is now being applied for.)

The reader should visualize a double beam slasher where the loom beams are arranged similar to a ferris wheel having only two passenger cars opposite each other. The two beams rotate about an axis, just as a ferris wheel operates. Of course, the axis of the "ferris wheel" is so arranged that both beams may make a complete circle on the axis, while at the same time turning on their own spindles or gudgeons.

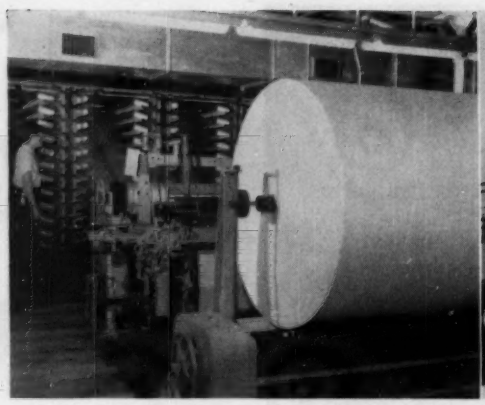
Position One would have the two beams parallel to the floor, with the warp being wound on the outside beam (beam farthest from the slasher delivery roll). The inside beam (nearest the delivery roll) is under the sheet of warp being delivered to the outside beam, and is inactive. Therefore, in this position the warp would be passing over the inside beam and going onto the outside beam.

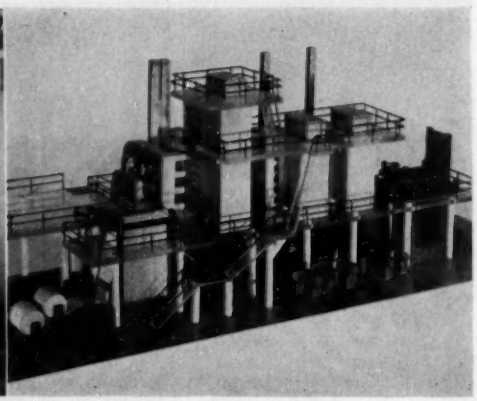
With the outside beam full, the flying doff begins to operate: Position Two would have the inside (empty) beam swinging upward and into position to receive the delivered warp, and the outside (full) beam swinging downward.

The cutter and fastener mechanisms cut the outside (full) beam loose from the warp and fasten the oncoming warp to the inside (empty) beam.

Temporarily, the inside beam which is being filled with warp, remains as the inside beam—while the outside (full) beam is being doffed and an empty beam is being inserted in its place.

Position Three would be the two beams rotating away from the slasher delivery roll until the new and empty beam is in position on the inside and the beam being filled is on the outside, in the Position One station.





Shown in the left photo above on the wind-up stand as it came off the loom is one of the huge rolls of tire cord fabric now being made at Firestone Textiles in Gastonia, N. C., for processing in the Company's new electronically controlled cord-tensioning and gum-dipping unit, model of which appears in photo at right.

Big Rolls of Tire Cord Fabric Facilitate Operation of New Cord Tensioning and Dipping Unit at Gastonia

New electronic tire cord processing equipment now in full scale operation at Firestone Textiles, Gastonia, N. C., gum-dips the tire cord, stretches it, and tempers it in one continuous operation. Specially designed and built by Firestone, the machine is said to be the first of its kind in the world.

As the cords pass through the tension gum-dipping unit, they are softened with a chemical solution, then stretched and tempered in a three-stage bank of water-cooled tension rolls and high-temperature, direct, gas-fired ovens. This conditions the fabric to absorb the penetrating gum dip which gives adhesion of the rubber to the fabric. Operating speeds range from 30 to 60 yards per minute.

The unit has been under development for six years, and most of its exclusive features were designed by Firestone engineers. Actual construction was begun early in 1954. At every stage in the process, electronic measuring devices and controls maintain constant temperature, tensions, speeds, and thicknesses of fabric. Actually, the machine is a commercial adaptation of the Kidde tensioning machine, according to a company spokesman.

To keep the unit in continuous operation, Firestone engineers developed special automatic roll changing and fabric-splicing equipment. The splicing equipment exerts a pressure of 900 psi, providing strong splices that allow the fabric to go through the unit smoothly.

To cut down the number of splices needed to keep the unit supplied with fabric, rolls 53 inches in diameter and 60 inches wide are used. Containing 4,200 yards of fabric, they are said to be the largest rolls ever produced in a tire fabric plant.

CPA's Urge Companies to Change Fiscal Years

The calendar year is seldom the best choice for a company's fiscal year, according to a new pamphlet published by the American Institute of Accountants.

The Institute, the national professional society of certified

operated.

The color slasher requires two operators and, although the doffing can be done by one man, both are used at Woods. The second man is used primarily to move the filled beams to the drawing-in department and return empties to the slashing room.

Weave Room Problems. The denims being woven on the mill's 40-inch Saurer looms present a problem not commonly encountered with grey weaving: the goods are not desized and therefore will show variations in size in the finished product. Further, traditional means of tying warp start-ups to a runner causes lumps on the loom beam for about the last 20 yards on the beam. This tends to cause so many loom stops that from 5 to 15 yards of hard waste can be expected from such cause.

Sizing is applied heavier at the doff when the slasher is slowed down, causing brittle ends which break easily and whose roughness causes filling breaks. These sources can add up to a significant decrease in weaving efficiency, and did so at Woods before the slasher was fitted with the doffer.

The Outcome. Shading at the color-slasher, or greater color pick-up at the start and finish of warps due to slasher slowdown, has been

public accountants, has prepared the pamphlet, "Do You Close Your Books on New Year's Eve?" to encourage businesses and organizations to use fiscal years based on their natural business years.

The natural business year of any company, it explains, covers an annual cycle of activity ending when inventories, receivables, and loans from banks are lowest.

Use of the calendar year for financial accounts was brought about in the United States by the excise tax law of 1909, and the habit remained after the law was changed, the pamphlet points out.

Advantages cited for natural business year accounting are:

1. Inventory can be taken when it is lowest and when employees are least busy.

2. The balance sheet will show the company's most liquid position—always a help in getting bank credit.

3. The income statement will show results of operations during an actual cycle of the business.

4. Financial statements for each year will be available earlier for the following year's planning.

5. Tax returns will show smaller amounts for inventories and accounts receivable, reducing the area of possible dispute with the government.

6. Certified public accountants will be able to render service to the company more effectively when they are not in the midst of calendar-year auditing.

Single copies of the pamphlet are available without charge from the Institute at 270 Madison Avenue, New York 16, N. Y.

Finishers Need Steady Flow of Goods, Howell Says

In his annual report to the National Association of Finishers of Textile Fabrics at its 41st annual meeting held recently at the Plaza Hotel in New York City, Association President Walter R. Howell stated "the past year seems to have been satisfactory for most other lines of business; in fact, President Eisenhower, in his message to Congress, called 1954 one of our most profitable years. Nevertheless it has been a tough one for textiles in general, and as usual very tough for the textile finisher. Business started off fairly well in January and February 1954, but for the next 6 months volume was way off—and prices low—and wages high—and that combination leads only to red figures.

"Since last September this situation was steadily improved and we are all now in good shape volume-wise, but unless the low prices that were made during the bad months, when we were all trying to keep our organizations together, are withdrawn or raised, profit-wise we are not going to be much better off.

"It is particularly unfortunate for our finishing industry that we are unable to get a more steady, even flow of goods to finish. These periods of high and low receipts are bad for labor, management, and customers. A finishing plant cannot drop down to say 50 or 60 per cent of production and then suddenly have a spurt up to 100 per cent or over and not need time for the build-up. When plants have a slack period they cannot afford to carry help, and understandingly the help cannot just hang around idle until the plants get busy again. In other words, if receipts and production were on a more even basis, deliveries and quality of work would be improved, making the finishing service more in line with what it should be.

"I am convinced we will continue to have good volume at least for the first six months of 1955, but of course the European or Asian situation could have some effect on this, as could further lowering of tariffs on textiles.

"To sum up, I would only like to add that I have great confidence in the ability and ingenuity of the finishing industry. We are, in my humble opinion, the most important part of the entire textile set-up, and we must hold our heads high and not be ashamed to ask a price that shows a profit on work well done."

Elections of officers and members of the Association's executive committee were held at the meeting. Mr. Howell was re-elected president. J. Marshall Cole, Cold Spring Bleachery, Yardley, Pa., and George Sinkinson, Sayles Finishing Plants, Saylesville, R. I., were elected as vice-presidents. Sydney M. Cone, Jr., Cone Finishing Co., Greensboro, N. C., was elected as chairman of the executive committee. Joseph E. Moesl was elected as treasurer.

eliminated. Along with this, oversized and overdried warps also traceable to slowdown have disappeared because of the continuous nature of the color-slasher after installation of the "flying doff;" pick-up and drying uniformity are closely controlled. Previously, about 100 yards of warp threaded through the train was tied up and became waste through these slowdowns for each set of warps run. In terms of time savings, it is said that elimination of stops and slowdowns will allow use of six slashers where seven were formerly required.

Since warp start-ups are now made by laying the warp sheet on the beam evenly and securing it by means of tape, lumpiness due to runner tie-ons has been eliminated. This, plus production of a loom beam at the Woods mill that is even with respect to size and color from one end to the other, has allowed for weaving the warp down to within the ¼ yard of the end required for tying on new warps. This represents a 75 per cent waste reduction.

The Future. Through experience with this attachment at Woods, management feels that the use of color-slashing will increase. Because of weave room waste reductions, it is also felt that the unit is adaptable to grey slashing.

MERCHANDISING

No. 4 of a series

EXCLUSIVE

Here's a five-step program to

Reduce Consumer

"I PAID for first class merchandise — I want my money back!" Thus another irate and dissatisfied customer chips away at the quality reputation of a company. A potential friend and future sales have been lost.

Can this not-too-uncommon scene be prevented or controlled? The answer is YES! A well engineered plan, approved and backed by management, and executed by capable supervision, will bring consumer complaints under control and reduce them to a minimum.

The plan includes five general phases which embraces practically all operating areas of a company:

1. Product engineering and field testing
2. Effective quality control and final inspection
3. Basic claims policy and standard field investigation procedure
4. Complaint classification and compilation
5. Review, correction, and follow-up

The plan acts as a chain. Omission or neglect of any one link will seriously hamper the over-all results. Let us review the functions of each step of the plan.

Product Engineering and Field Tests. All the supervision and quality control in the world cannot correct a poorly engineered product. Basic product specifications must be well planned and tested before the main production run. Allow sufficient time for product development and mill trials so that unforeseen but costly bugs may be ironed out before committing valuable amounts of men, machines, and material. New ideas which seem simple and easily applied may have disastrous effects if not first scrutinized and tried out by qualified technicians.

A case in point is that of a large weaving mill with a considerable surplus of a certain type yarn. The mill bid and was accepted on a large QM contract and hurriedly went into production without the usual development and field tests. After thousands of yards were woven, the cloth was found to be unsatisfactory and was rejected by QM.

Another example is highlighted in the floor covering field. Because of economic factors, management decided to reduce the number of picks per inch in the product, but neglected to have the resultant change reviewed and tested by the technical department. The result was looser tufts, which came out shortly after use by the customer. A change in back sizing could have minimized the subsequent 20 per cent rise in claims due to "tufts out."

In many textile products inherent defects do not show until the fabric is used by the consumer. Thus field tests or simulated laboratory tests are important before large production runs are shipped to the customer. Many textile and apparel companies have had their occasional "flop." In most cases the underlying fault was with management's failure to field test the product properly and to eliminate potential sources of complaints before large scale production and merchandising.

It is important to remember that a relatively small amount of development time and effort pays big dividends. Also, if the development time is not sufficient, heavy losses in money and prestige may result.

Quality Control and Final Inspection. "Gosh, that product doesn't look or feel like the sample." These famous last words reflect an inadequate quality control system. It means that good ideas and excellent development work can be distorted without proper manufacturing control. Quality control is a vital link in controlling customer complaints.

Some of the ingredients of a good control system are as follows:

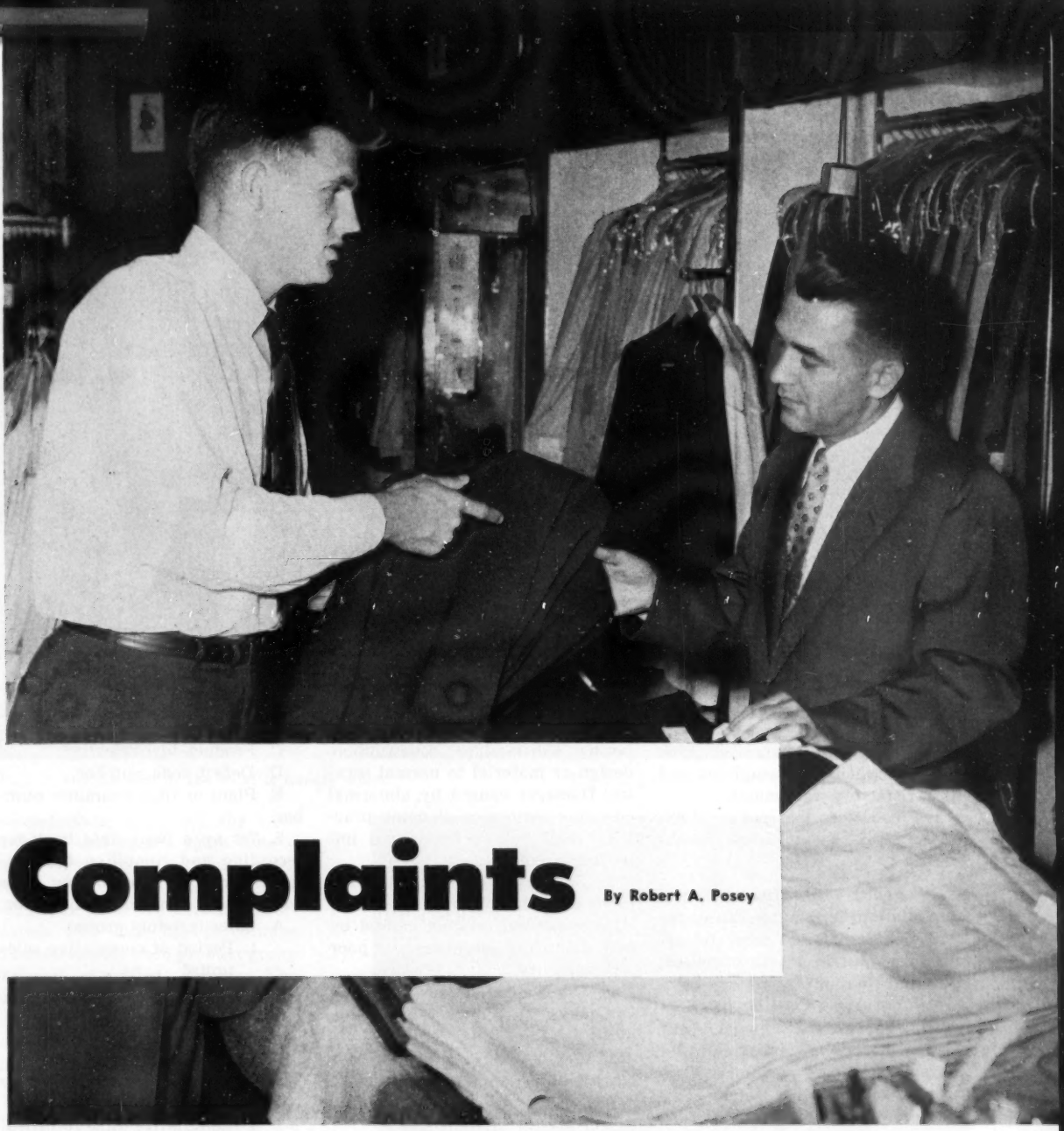
1. Top management initiation and backing.
2. Practical product specifications.
3. Standard procedures for carrying out the specifications.
4. Mechanisms such as reports and control charts to measure performance of key manufacturing operations.
5. An independent technical group to follow up and enforce quality control procedures and quality control data.

Final inspection is the last point at which bad work can be prevented from getting into the customers' hands. The axiom, "Don't let the neighbors see your dirty wash," is extremely important.

Through rigid final inspection, defective products are kept from the critical eyes of the neighbors. It is hard to measure the losses when defective merchandise goes to the customer. However, the losses are usually many times the value of the product which is rejected at final inspection. Those losses are sometimes not immediately apparent and will reflect in long range sales and consumer acceptances.

Ingredients of effective final inspection are:

1. Reflection of top management quality policies in written standard procedures. (This reduces con-



Complaints

By Robert A. Posey

" . . . I want my money back!"

flict between production and quality functions.)

2. Strong supervision and adequate training of inspectors who carry out inspection policies.

3. Adequate recording of reject data for analysis and follow up by quality control department.

4. Independent check of inspectors by quality control department to determine proper conformance to standard inspection procedure.

Claims Policy and Field Investigation. Company claims policy and investigation procedure should be spelled out formally. Issue a booklet to field representatives and customers, stating claims policy. A booklet could be set up covering the following points:

1. Introduction and purpose.

2. Initial investigation and reporting of complaint.

3. Product identification information.

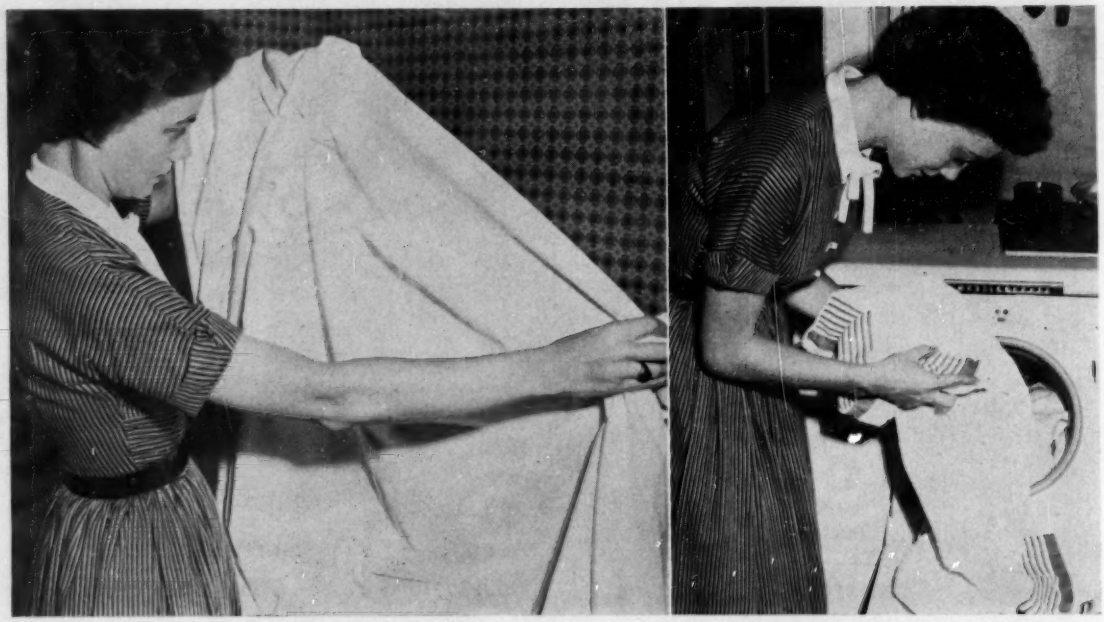
4. General settlement procedure.

5. Claims reporting.

6. Claims description and disposition policies.

Take a definite stand on each and every type of defect found. Is the company responsible or not? In this way company representatives can take a stand and resolve differences with a minimum of friction and communication. With specific descriptions of each defect, the right picture can be transmitted to the plant for effective analysis and follow up.

Major weaknesses found in larger companies stem from lack of accurate information or standard field nomenclature. Another



"..... and these sheets are less than a year old." "..... they're not making them like they used to."

weakness is the excessive time lapse between the complaint and its satisfactory settlement.

The use of formal policy eliminates these basic claims weaknesses.

Complaint Classification and Compilation. Assignable causes for customer complaints must be accurately classified and compiled. This information forms the basis for a sensitive reporting mechanism which alerts top management to the reactions and trends in preference of the customers. The proper classification and compilation of customer returns also provides the essential information for correction of manufacturing mistakes.

The following steps form a typical procedure for classifying and compiling customer returns data:

1. *Define the meaning of the term "Imperfect-Product Customer Returns."* One possible definition might be: "A returned unit of product containing one or more defects caused by manufacturing operations." This unit may contain a significant departure from established material, measurement or workmanship standards. In addition, it may be created by exposing substandard construction, design or material to normal service. Damages caused by abnormal customer service or cleaning practices shall not be considered imperfect product.

2. *Segregate all customer returns into two major groups:*

A. Imperfect product caused by manufacturing operations and poor serviceability.

B. Other returns caused by late shipments, inventory balancing, etc.

3. *Develop a specification for classification of all possible product defects.* The classification specification should include:

A. Type defect.
B. Defect description.
C. Code number.

A typical inspection sheet is shown on page 88. Most mills would have finer classifications, and more of them.

4. *Inspect and classify all defective returns received during a specified time period (usually biweekly or monthly).* Inspection should be carried out by a well trained, unbiased technician and in accordance with the classification specification. The inspection should record the following data:

A. Date of return.
B. Receiving memo number.
C. Product identification.
D. Defect code number.
E. Plant or final examiner number.

5. *Set up a basic data book for recording and compiling the customer returns information.* This book should contain headings for:

A. Sales (product group).
   1. Period of cumulative sales units*
B. Returns (product group).
   1. Type defect.
   2. Date.
   3. Period-units returned.
   4. Per cent period defective returns.
   5. Cumulative units returned.
   6. Per cent cumulative defective returns.

6. *Statistical computation of the data is relatively simple.* Divide the period or cumulative defective units for each product group and type defect by the period or cumulative sales of the product group and multiply by 100. Record the percentages in the book.

7. *After double checking all*

*To obtain the most significant and sensitive quality comparison between sales and returns, a sales cycle (not an immediate period) should be used. Thus monthly returns might typically be compared with average monthly sales (period sales) based on a six-month sales cycle. Cumulative sales would then be the addition of these average period figures and would compare with cumulative returns.

". . . . . but the rest of the shirt is hardly worn."

". . . . . I certainly won't buy this brand again."

computations, draw off the percentages and record them onto a prepared customer returns report. This report should show over-all sales and defective returns information and also the percentage breakdowns for each product group and all classified defects. The basic customer returns information is now in the proper form for intelligent review and corrective action.

Review, Correction, and Follow-Up. Quick corrective action is the final goal of proper classification and compilation of customer returns information. To achieve this goal the customer returns report must be thoroughly reviewed by competent quality control technicians who are completely familiar with all phases of manufacturing operations.

Upon discovery of the cause and origin of each type defect, the quality control department should then issue the customer returns report together with complete corrective recommendations to responsible members of top management.

Top management should review those recommendations in the light of overall company policy and then issue the necessary orders for corrective action.

". . . . . and they were new when I put them on this morning."

The final step is to arrange for an independent group such as the

TEXTILE MILLS CORP. **Spec. No. 19A**

SPECIFICATIONS & STANDARDS **Issued March 1, 1955**

Classification: STANDARD OPERATING PROCEDURE

Subject: CLASSIFICATION OF IMPERFECT-PRODUCT CUSTOMER RETURNS

The following shall be standard operating procedure for classifying imperfect-product customer returns.

Personnel charged with the task of examining, segregating, and classifying defective returns shall utilize the following instructions at all times.

Imperfect-Product Customer Returns—Definition. A returned defective item shall be a unit of product containing one or more defects caused by manufacturing operations. It may contain a significant departure from established material, measurement, or workmanship standards. In addition, a defective item may be created by exposing substandard construction, design, or fabric to normal service.

Damages caused by abnormal customer wear or cleaning practices shall not be considered imperfect product.

DEFECT CLASSIFICATION

Code No.	Defect	Defect Description
1 A	General fabric defects	Missing or broken yarn ends, short thick places, tight or slack twist, thick or thin lines, wavy cloth, uneven mesh, damaged or twisted yarns, sleazy feel, poor finish, bands of off-color yarn, or weak places.
2 A	Tears or holes	Any open place such as cuts, holes, or tears due to manufacturing processes.
3 A	Spots or stains	Any soil, spot, or stain that was caused by manufacturing and which affects appearance.
4 A	Other manufacturing defects	General workmanship defects other than listed, causing items to be unsatisfactory for customer use.
5 A	Frayed components	Fraying or damaging of fabric in all components due to normal service.
6 A	Unserviceable fabric	High shrinkage, discoloration, poor finish and appearance due to normal service.
7 A	Other serviceability defects	General defects due to normal service other than those listed, which are the responsibility of the manufacturer.

quality control department to inspect the specific operation periodically to see that the management's orders are complied with.

Constant and vigorous application of the approach and procedures listed in this article will result in the reduction and intelligent control of customer complaints. Controlling customer complaints means a better company reputation, more sales, and ultimately a higher profit for YOU, the manufacturer.

70-30

EXCLUSIVE

THE requirement: a light weight men's flannel suiting in the popular new darker colors, which would make up into garments of good shape retention.

The solution: a 70 per cent wool-30 per cent dope dyed Dynel blend of fine yarns spun on the woolen system.

The mill: Cyril Johnson Woolen Co., Inc., Stafford Springs, Conn.

Work with the blend began in 1950. Merchandising of the fabric, which is designated "Dynelaine," has been a cooperative effort of the mill's sales department, Dynel-producer Carbide & Carbon Chemicals Co., and men's store Browning King. The fabric was later included in the Gramercy Park line of cutter Max Udel Sons & Co. for popular price distribution.

Key functions of the fabric stressed in the program were its 10½-11-oz. weight, which allows the suit to be worn the year round, the "Stained Glass" color effect (small multicolored percentages in a predominantly dark mix), and garment shape-retention.

The photos and captions on the opposite page tell briefly how this wool-Dynel fabric is made; the table provides fabric analysis data.

Some of the methods utilized to promote nationally suits made of this fabric are as follows:

Salesmen show buyers in stores what the garments will do for the wearer, rather than a technical "over-the-head" comparison. Retail selling approaches are also suggested.

Regional ads are scheduled with key stores in major distribution points across the country.

Window and counter displays are provided each store.

Floor salesmen are instructed in selling techniques.

Garments are labeled to provide salesmen with outline of his

Wool-Dynel Suiting

How Cyril Johnson Woolen Co. makes and merchandises its "Dynelaine"

selling talk and, of course, to give information to browsing shoppers.

Stores are encouraged to run ads in local newspapers at same time regional ads appear. Mats and copy are provided and co-operative advertising arrangements made.

TEST DATA ON 70-30 WOOL-DYNEL BLEND (DYNELAINE)*

Weight (oz/sq yd):	6.2
Yarn Count	
Picks:	43
Ends:	58
Weave:	Flannel
Finished Width (inches):	62½

Components (%):	Total Fabric	Warp	Filling
Dynel:	23	0	50
Wool:	77	100	50

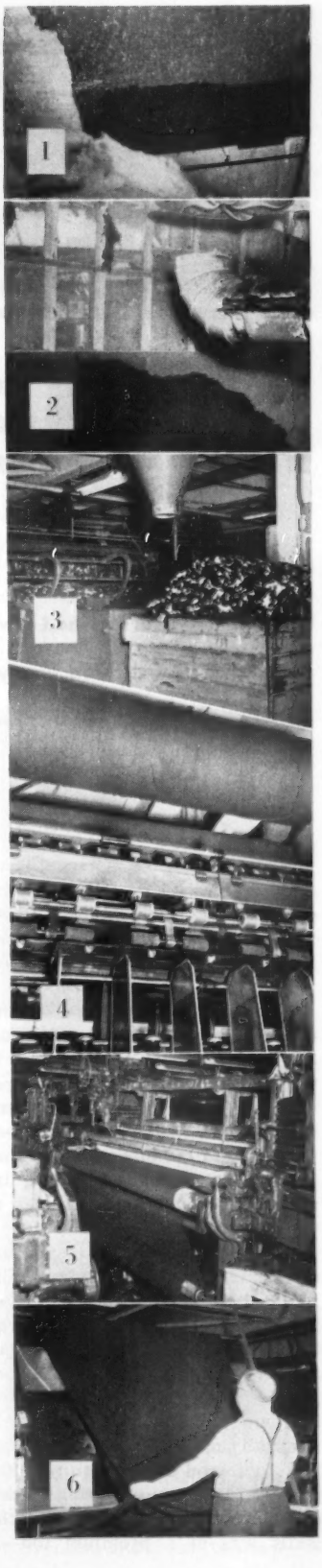
Ironing Characteristics (OF):			
Ironed On:	Face	Face	Back
Rated On:	Both	Face	Back
Temp. Safe For Color:	350	430	328
" " " Hand:	360	395	337
Damage Temp., Color	360	440	337
" " Hand	370	415	350

Shrinkages (%)	Sample No. 1 Warp	Sample No. 1 Fill.	Sample No. 2 Warp	Sample No. 2 Fill.	Sample No. 3 Warp	Sample No. 3 Fill.
1st Steaming:	1	0			1	0
1st Sponging:	5	1			5	1
2nd Steaming:					4	0
2nd Sponging:					6	1

Shrinkages (%)	Sample No. 1 Warp	Sample No. 1 Fill.	Sample No. 2 Warp	Sample No. 2 Fill.	Sample No. 3 Warp	Sample No. 3 Fill.
1st Dry Cleaning:	5	1	2	1		
2nd Dry Cleaning:	5	2	3	1		
3rd Dry Cleaning:	6	1	4	1		
4th Dry Cleaning:	6	2	3	1		
1st Dry & Wet Clg:	7	2	5	2		
2nd Dry & Wet Clg:	6	1	4	1		
3rd Dry & Wet Clg:	7	2	6	3		
4th Dry & Wet Clg:	5	2	4	2		

Grab Test (pounds):	Warp	Filling
	42	54

*Abstract of a report on Cyril Johnson's Dynelaine fabric, made by the textile fibers laboratory of Carbide & Carbon Chemicals Co. Steaming, sponging, cleaning, and ironing tests were as outlined in Tentative Test Method DS-1345; fiber content was determined by Method DS-1157. Strength was measured by the grab method, as prescribed in ASTM Designation D 39-49, in an Instron tester; each listing is an average of five breaks.



1. RAW MATERIALS for the 70-30 wool-Dynel suiting fabric are stored near the picker room (wool at left, Dynel at right). Wool sorting isolates 100 per cent virgin stock in the 60s to 70s range. Sorted wool takes a side trip to the dyehouse and is returned to be blended.

2. WOOL AND DYNEL are fed to a 4-picker mixing set which in turn feeds a single mix to blower room through Truslow blender. Care is taken in picking to avoid over-oiling Dynel.

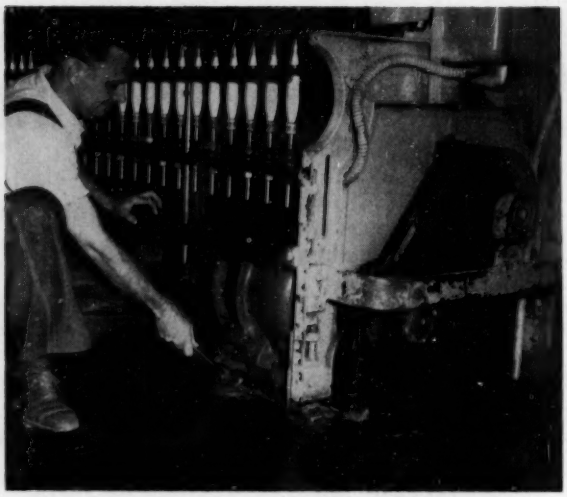
3. CARD is fed 50-50 wool-Dynel mix. Yarn spun from this stock will be used for filling; warp stock is all wool, the combination in the fabric results in the 70-30 proportions.

4. SPINNING is organized to provide 6-run warp and 7½-run filling for the Dynelaine fabric.

5. WEAVE ROOM of 92-inch looms usually contains several looms on this blend. All color effect is in the blend.

6. DYNELAINE fabric arrives at finish perch after extended-cycle fulling (to full wool and set Dynel), shearing, and decating. Width of fabric at finish perch is 62½ inches; final width after sponging will be 58-60 inches, weight 10½-11 ounces per running yard.

MOTORS UNDER FRAMES



This spinning overseer had always wanted individual drives on his frames, but there simply wasn't space to install them in the conventional manner. He found a way though. . . .

Staff Interview
EXCLUSIVE

IT ISN'T NEWS anymore when a mill changes its present spinning frames from pulley to individual motor drive. But it *is* news when drive motors of the *conventional* type are placed under *conventional* spinning frames.

At the Eva Jane Plant of Avondale Mills in Sylacauga, Alabama, 228 Whitin Model A frames are in the process of being converted from 4-frame group drive to individual motor drive with variable speed pulleys, and because of space limitations the motors are being installed underneath the frames at the foot end.

For years Eva Jane's spinning department foreman J. M. Phurrough had wanted motor drives for his head-end-belt-driven frames, but there simply was not adequate space for installation of the equipment in the aisle at the foot end of the frames—the way it is usually done. All of the space at the foot end was required for passage of personnel, roving trucks, and doff boxes. Space along the walls was at a premium too—it was needed for storage of roving, bobbins and quills, and yarn.

Even though he was faced with this obstacle, Mr. Phurrough did not stop looking for a way to convert his machines to individual drives. If some method could be devised for placing the drive motor under the frames, the problem would be solved.

Electrical and mechanical engineers at the mill were consulted on the matter, and in 1948 an idea was conceived for making the conversion. It was decided to install a test unit on one frame.

At the time of this interview, the drive had functioned entirely satisfactorily, with no repairs or replacement of parts required. The original belts are still being used and are apparently in good condition.

The excellent performance of this test drive and cognizance of the advantages to be derived if all frames were so equipped resulted in authorization for their conversion—over a period of time. When this article was written, 72 frames had been changed over.

Advantages of Conversion. Mr. Phurrough is, of course, "mighty proud" that Avondale's management approved this modernization program for his department.

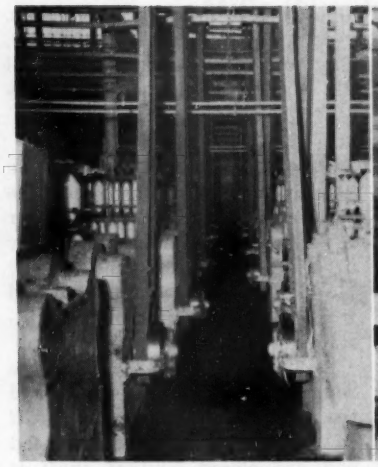
In the first place, the individual drives with variable speed pulleys make it so much easier to change speeds . . . no small item in this plant where as many as 23 different kinds of yarn are made, ranging in counts from 6½s to 30s. Think of the time saved by eliminating the necessity for changing pulleys. Lots of steps are saved, too—there is no space for storing pulleys in the spinning room which is on the fourth floor of the mill; so they are kept in the basement.

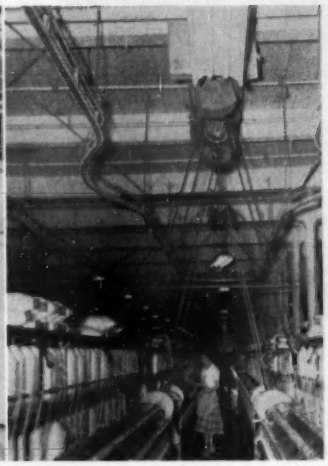
Then there are the benefits to be derived from more uniform spinning speeds.

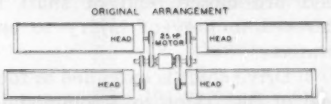
Frames can be placed on line, rather than staggered for group drive arrangement, so that wider alleys are provided at head ends of frames.

Drive belts to pulleys on shafting suspended from ceiling are not required, providing better visibility in the room and eliminating an accident hazard. Belt replacement and maintenance costs are reduced.

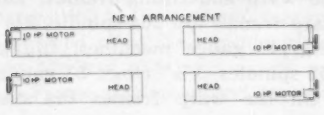
With the motors under the frames, the face of the drive pulleys is out, convenient for adjustment of speed. Movement of the motor is required only when



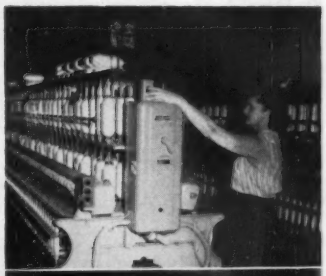




BEFORE conversion, frames were staggered for group drive (left photo and sketch). Right, drive belts were accident hazard, cut visibility.

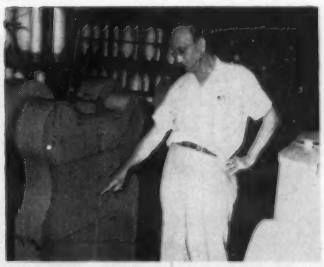


AFTER conversion, frames are on line, providing wider alleys at the head end (upper photo) and foot end (lower photo). Appearance of room is greatly improved and safer working conditions are provided.

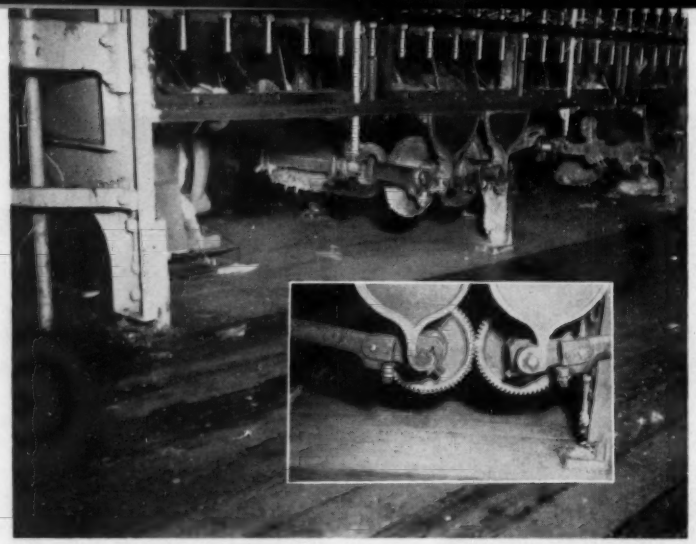


PUSHBUTTONS for starting and stopping frames are conveniently located at foot end (upper photo) and head end (lower photo).

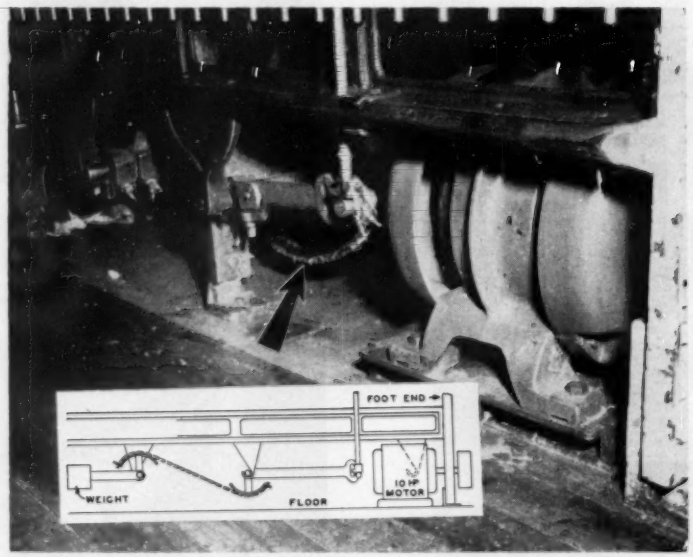
CREELING these frames since the motors have been placed underneath is no more strenuous than previously since they are only 1" higher.



YOU'D NEVER KNOW that a drive shaft once protruded through these doors at the head end of this spinning frame—a neat job of conversion, and a safe one too.

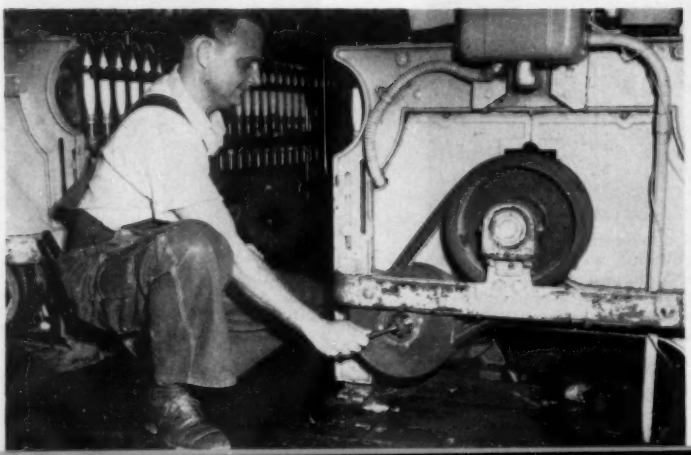


WARP FOOT END ROCKERS ARE DRIVEN THIS WAY. Inset is close-up photo of the two 8" diameter gears utilized.



FILLING FRAME FOOT END ROCKERS ARE DRIVEN THIS WAY. Arrow (in center of photo) points to quadrant nearest foot end of frame. Inset is schematic diagram of arrangement.

CHANGING SPEEDS IS EASY NOW. Face of drive pulley is out, convenient for adjustment of the variable pitch sheave. Movement of motor is required only when tightening or loosening drive belts (see photo on page 90).



tightening or loosening drive belts.

Is it any wonder then that Mr. Phurrough declared "I wish all 228 frames were already converted!"

How It Is Done. Following is a step-by-step description of how the spinning frames are changed over from pulley to individual motor drive:

1. Pulley cross girt is removed from head end of frame and installed at foot end.

2. Tight and loose pulleys are removed from the drive shaft; and the extending arbor is sawed off so that when the doors on the head end are closed, end of shaft is covered to prevent injury to operatives.

3. Drive shaft is extended at foot end of the frame to accommodate the new V-belt type drive pulley

NOTE: On band-drive frames with conventional tin cylinders, the old foot end cylinder arbor is replaced with a new and longer one. On tape-drive frames with individual pulleys on the drive shaft, the drive shaft is sawed in two near the foot end, and the short section of shaft replaced with a piece long enough to extend through the foot end sampson to the foot end drive shaft bearing on the cross girt. A sleeve type coupling is utilized to connect the two pieces of drive shafting.

4. So that the drive motor can be installed under the frame at the foot end, the position of the foot end rocker hangers is reversed.

NOTE: When the position of the foot end rocker hangers is reversed, it is, of course, necessary to change the method of driving the rocker shaft. The traverse builder bar can no longer be utilized for this purpose because on the upstroke the foot end lifter would go down and vice versa.

The accompanying illustrations show the methods devised to drive the foot end rocker in its new position.

It was necessary to work out two ways to do this because of the difference in construction features of the warp and filling frames. The warp frames are 204-spindle, 2⅛" ring, 4" gauge machines; filling, 252 spindles, 1⅜" rings, 3" gauge.

On the warp frames the dis-

Mills Urged to Tell Consumers About Quality Control Built into Fabrics

Quality control should be related primarily to consumers' desires and expectations, and not to textile mills or finishers alone, if markets for textiles and textile products are to be expanded, L. A. Fluck, manager of Textile Resin Department of American Cyanamid Company, told the recent fifth annual conference of the Textile Division of the American Society for Quality Control.

"We must tell the consumer about the quality control built into fabrics in terms that will have meaning to him," Mr. Fluck stated.

"We must do this primarily by identifying quality controlled goods by tags bearing the name or brand of the producer and simple, accurate information; and we must constantly check our concepts of useful quality by a flow of information from the consumer."

Mr. Fluck warned that if mills and other producers of soft goods do not take vigorous steps to clarify the whole quality control situation as it affects the consumer's use of textiles and textile products, the industry may be defaulting to the exasperations and difficulties of government action in some form.

Since the consumer buys primarily for styling, fashion, beauty, appearance or emotional satisfaction, quality control becomes of prime importance not in the *first*, but in the *second* sale to consumers, according to Mr. Fluck.

"Quality is judged by the consumer in terms of expectations in his mind," he stated.

"Giving the consumer the correct expectation is a problem in communications. And two-way communications at that. The consumer must be told clearly what to expect in the way of performance, and the mill must become familiar with what the consumer is thinking and what the consumer wants, if quality control is to have any meaning to the consumer."

Mr. Fluck referred to the change in store attitudes toward identifying tags and labels. Whereas five years ago there was resistance to tags, today, he said, the need for informative and accurate tagging on fabrics and on garments is clearly established.

"I believe that this is the biggest opportunity that the mills and finishers producing quality controlled goods have had," Mr. Fluck added.

"He at last has an opportunity to identify his goods with some hope that his identification will reach the consumer."

Man-Made Fiber Capacity Studied

The annual "Textile Organon" study of man-made fiber capacity reveals that current industry capacity is 2,195,000,000 pounds a year. By next July, this is expected to increase to 2,214,000,000 pounds with further increases to 2,286,000,000 pounds by March 1956 and 2,311,000,000 pounds by October 1956 anticipated.

The capacity survey covers viscose+cuprammonium rayon, acetate, and the non-cellulosic fibers in all primary forms—namely, filament yarn, monofilaments, staple, tow, horsehair and straw—but excludes the "capacity" for producing waste.

It is emphasized that the survey is a capacity study and not a production forecast.

tance between the foot end rocker shaft in its new position and the second rocker from the foot end permits use of two 8″ dia. gears, one on each rocker shaft, to impart motion to the foot end rocker.

On the filling frames, however, the distance between the two rockers is greater, so two builder motion quadrants or stroke arms and a chain to connect them are utilized.

With both methods the rod supporting the weight for the foot end rocker is offset to permit clearance over the second rocker shaft from the foot end.

Since the rigid traverse builder bar is no longer required to impart motion to the foot end rocker, it is sawed off at the second rocker from the foot end.

5. Frame is aligned and leveled and spindles plumbed. The frame is raised 1″ higher than standard.

NOTE: This adjustment in height is in most instances made with the adjustable feet on the frame. Where the condition of the floor requires more adjustment, steel blocks are inserted under the feet. Frame is bolted to the floor with lag screws.

6. A hole is cut in foot end sampson so that drive motor shaft can extend through it.

7. A 10 hp, 1750 rpm, open, screenless textile motor, Frame 324, is installed under the frame on an adjustable base.

8. Combination magnetic starter and pushbutton station is installed at foot end of frame; also a pushbutton station at the head end for doffers' use.

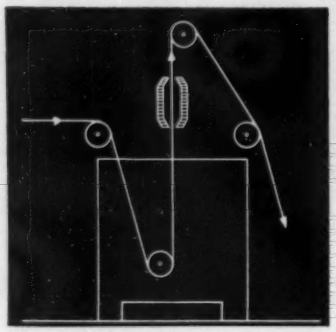
9. Adjustable sheave is installed on the motor shaft, matching fixed sheave on spinning frame drive shaft, and V-belts applied.

Frame is then ready to be started up.

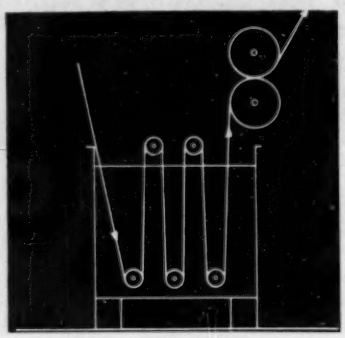
Cost of Conversion. Materials for changing one frame from pulley to individual motor drive cost approximately $600, including the motor, base, sheaves, belts, switches, wire, and conduit.

By scheduling the conversion to coincide with frame overhauling, Mr. Phurrough "kills two birds with one stone" and holds the labor cost down. 32 manhours per frame are required of spinning room personnel (includes time for overhauling frame and converting drive). Electrical work requires approximately 16 manhours.

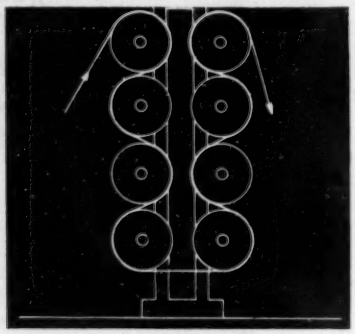
METHOD ONE



SINGE



DESIZE



DRY

Here are two ways to remove tar spots in finishing

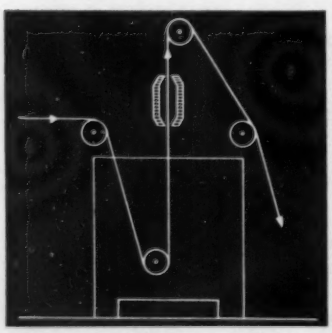
Exclusive Staff Interview

IF COTTON goods contain tar spots and will undergo wet processing before reaching the customer, two ways to get rid of the tar spots have been devised at the Bleachery Division of Russell Manufacturing Company, Alexander City, Ala. The processes were worked out by W. O. Bozeman, superintendent, with the cooperation of Burkart-Schier Chemical Co.

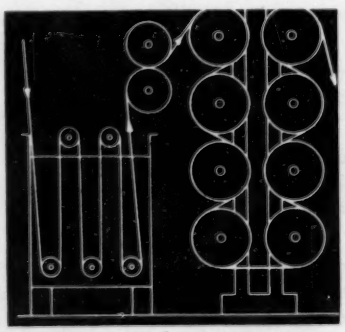
Either system of wet processing to remove the tar spots is satisfactory; the one used will depend upon the physical equipment and convenience in individual bleacheries.

Method One: In the usual manner, singe, desize, and *dry* the goods (Russell uses dry cans). Pad on a mixture of equal parts of kerosene, red oil (plain), and pine oil (plain) which has been thoroughly agitated; this is fed to the padder in proportion of one-third unheated mixture to two-thirds

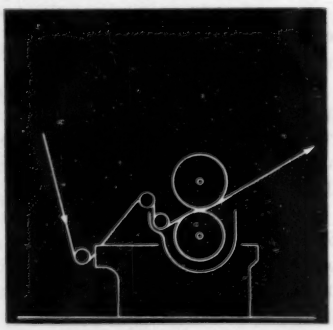
METHOD TWO



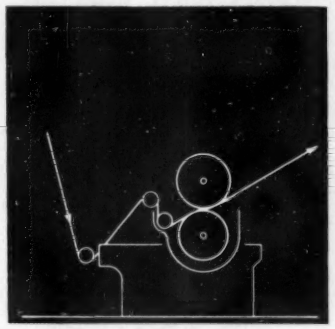
SINGE



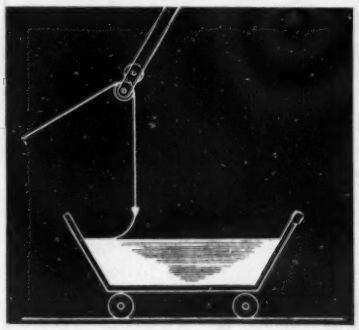
DESIZE-DRY



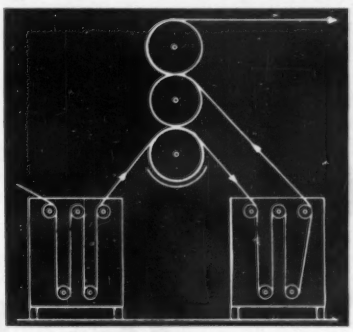
PAD



PAD



SET



MANGLE

water at the boil. The cloth pick-up is 70%.

Note that the water is fed separately and is not in the kerosene-red-pine oil mixture.

After padding, swing goods into a box while they are wet and permit them to set for one hour.

Next, run into a 2-box mangle with two nips. The entering box contains hot water; the other box is a cold water rinse.

Then mercerize and bleach.

Note: since the goods contain the kerosene-red-pine oil mixture when they go into the hot water box of the mangle, this box gradually has a build-up of the mixture. It is not drained because the effect of the build-up is not detrimental and is considered beneficial.

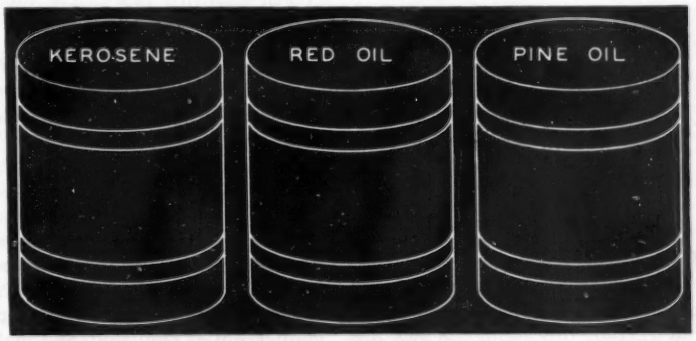
When the goods are checked (turpentine method) for tar spots, the tar spots will be gone. However, in some instances a very few spots may be found in the goods. but they will not be tar. The opinion is that these spots may be some unidentifiable foreign matter or a residue that is in with the tar.

Method Two: Follow the foregoing procedure through the padding process; e.g., singe, desize, dry pad with kerosene-red oil-pine oil mixture.

Without any washing or delay, steam goods for about an hour. (J-box is used at Russell).

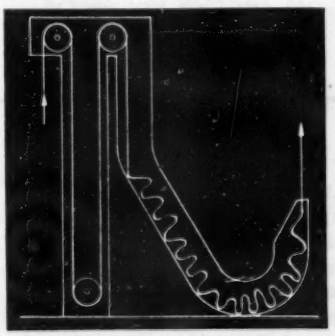
Pull from J-box without washing and feed to caustic saturator.

Next, feed to J-box for bleaching.

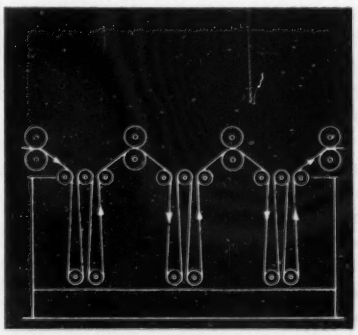


THESE ARE APPLIED AT THE PADDER

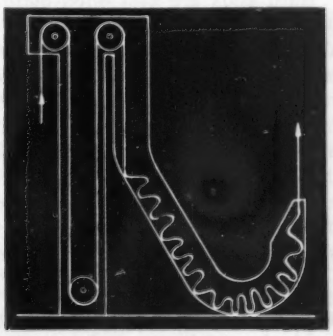
By either method there is no kerosene retention. Chemical cost (labor not included) is less than a cent a yard, for typical 4.00-yard material.



STEAM



CAUSTIC SATURATOR



BLEACH

Get All The Wool You Pay For

By Stephen E. Ziak

EXCLUSIVE

IN WOOLEN system yarn manufacture, yields depend largely on the quality of stock to be carded, but certain processing factors are also important to carded yarn output. These include the manipulation of the emulsion used, and mixing and carding practices.

Preparing the Stock. To produce a fluffy wool for better blending and for easier fiber penetration by the emulsion, long fibers or clustered wools should be opened on an opening picker before blending.

Hard ends are best oiled before pickering or garnetting, while short fibers and reworked short staple waste should be dusted to remove shives, burrs, and other foreign matter. In addition to their dulling effect on card clothing, these impurities reduce yields, because when they are emulsified they disintegrate and form muddy blotches which create shady yarns.

Laying and Oiling the Mix. This is a critical point in influencing yields; loss at the cards because of a lack of adherence of the wool fibers to each other must be carefully guarded against here.

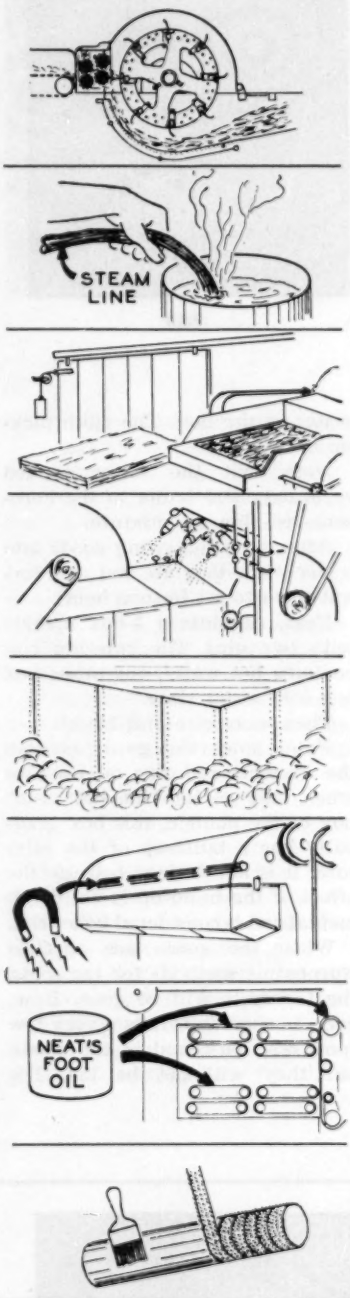
This is done in two ways: proper application of emulsion, and maintenance of moisture content.

The thin sandwich laps required for proper blending (see TI for April, 1954, "You Can't Beat A Good Sandwich Mix") should be oiled on each layer. A suggested emulsion is 2 parts water and 1 part oil (vegetable or mineral) which is heated until warm, not to the boil, before application. A warm emulsion will adhere more readily to the individual fibers.

The pump-type sprayer such as is used in fruit tree spraying is a good applicator for this preblending oiling.

In the case of blends containing rayon, emulsion should not be applied directly to the rayon to prevent clotting; enough oil will be picked up by the rayon through contact with oiled wool to allow for proper running. Nylon-wool blends may be oiled as ordinary blends.

Check These Points to



It is customary to lay blends at ordinary mill room temperatures, which permits the emulsion to penetrate and run freely over the fibers. Exposure of the blend at this stage to outside drafts can cause static and subsequent card-

Increase Wool Yield

1. **OPEN AND CLEAN** wool properly for best emulsion penetration.
2. **HEAT EMULSION** to insure adherence to fibers (don't boil).
3. **KEEP DOORS AND WINDOWS** of blending room closed to avoid drafts.
4. **CHECK MOISTURE CONTENT** and control emulsion spray at picker.
5. **LINE AND SEAL OFF** storage bins to prevent loss of emulsion.
6. **INSTALL A MAGNET** in card hopper to remove tramp metal.
7. **LUBRICATE** leather aprons and tapes with neat's-foot oil.
8. **SEAL OFF MOISTURE** between rolls or cylinders and fillet.

ing loss; doors and windows should be kept closed.

Pickering: Applying Emulsion. After the mix is laid, the blend is again oiled. The blend should be cut vertically for feeding to the opening picker. The oiler used for this purpose should be adjustable so that the oil spray can be controlled from a stream to a fine mist.

The type of spray used depends on the moisture content desired and stock employed. For example, the rayon-wool blend referred to previously should be oiled at a fine mist because of the undesirable effect of applying heavy concentrations of oil directly to rayon.

Over-oiling is as harmful as under-oiling at this stage. Over-oiled stock is hard for the fancy to raise off the card cylinder, and has a tendency to pack or choke the cylinder. Stripping becomes difficult and the yield picture is affected.

On the other hand, if not enough emulsion is applied, the blend will not cling properly to carding points and will tend to fly out of the machine.

Pickering: Moisture Checks and Storage. Proper moisture content depends on the length, fineness, and condition of stock and the nature of the emulsion. However, a simple check can serve to set emulsion flow on the opening picker: a handful of stock is squeezed between the fingers and worked over with both hands. An evenly distributed, "lardy," but not blotchy coating of emulsion resembling the feel of cold cream is about right. Emulsion flow can safely be set to this quick-check method.

Uniformity of emulsion and color distribution can be improved through use of a stock spreader in storage bins, and loss of emulsion at this point should be guarded against by lining the bins with a smooth material such as tin and sealing them off.

Carding: Speed. Considering the card to be in top notch condition, speeds of 65 to 95 rpm can be used with good results from the yield standpoint. When cylinder speed is changed to adjust to stock and moisture content, care must be taken to check settings of cylinder and back fancies, combs, and condensers.

Carding: Screens, Magnets. Screens can be used under the first breaker tumblers and breaker cylinders, and licker-in and tumblers of finisher cylinder to increase yield.

Another aid to increasing yields is magnet installation at the hopper of the card. These magnets can be placed at the topmost point of the spike apron to collect metal bits such as drop wires, pipe cleaning rods for frame spinning, or any other metal. These impurities can damage both metallic and fillet clothing, and the bent points which result can cause considerable fiber droppage.

Carding: Maintenance. Needless to mention, card wire points should be in excellent condition at all times; dull and pitted clothing or pitted metallic wire can prevent proper holding and carding action on the stock and seriously affect yield.

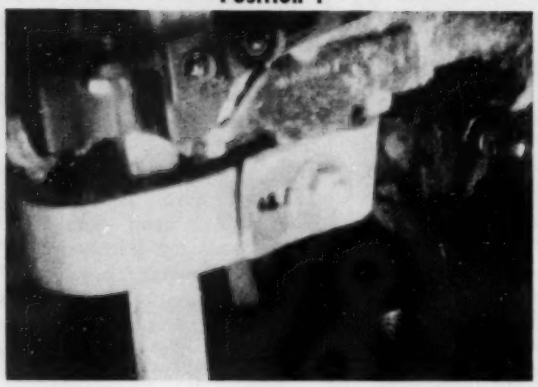
Emulsions used on the stock also help to keep leather aprons and tape in good pliable condition, thus allowing ribbons of stock to cling to tapes more readily. An additional application with a pump type spray of neat's-foot oil to leather at regular intervals will prolong the life of the leather as well as keep it in pliable condition.

Rubber aprons can be easily cleaned with a solution of Oakite and luke-warm water. Their maintenance pays off in reduced roving waste.

Carding: Moisture Control. Minimizing waste-producing static is accomplished through a humidification system in most mills. However, equipment should also be protected from the damaging effect of moisture, which can affect yield adversely.

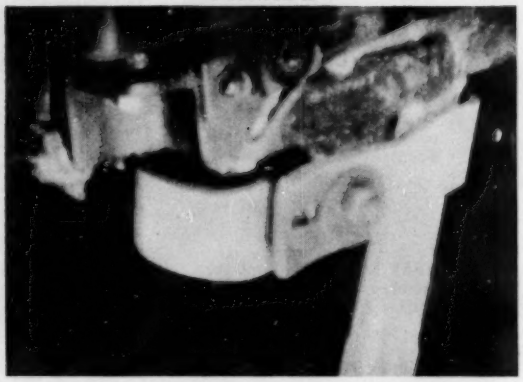
A precaution which can be taken against this is the application of a primer to all iron or steel rolls before applying card clothing to them. This seals out moisture and prevents its settling between the fillet and the rolls. This precaution prevents corrosion and subsequent breaking out and shelling out of card wire, which can create high spots and dulling of the action at other carding points; it also prevents deterioration of plied fillet foundations.

Position 1

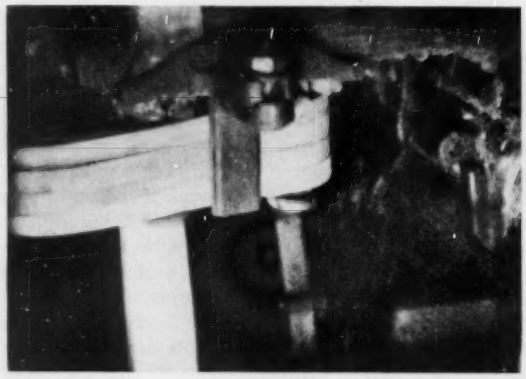


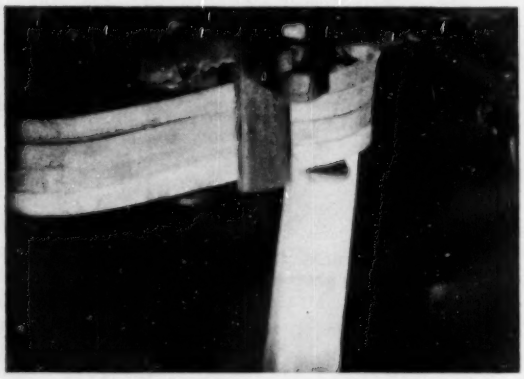
Picker stick starting across, moving to right.

Position 2



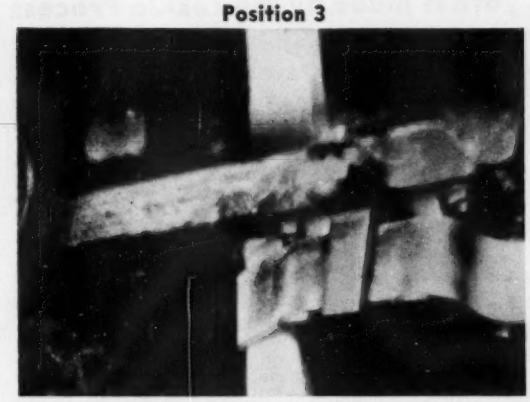
Instant when picker stick first strikes check strap. (Lower photo, straps are beginning to slide to the right, the top straps first.)



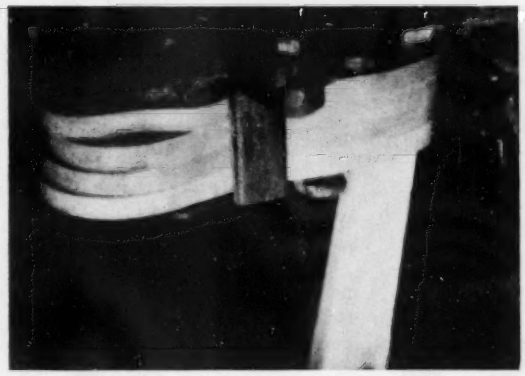


How a picker stick acts on two types of check straps

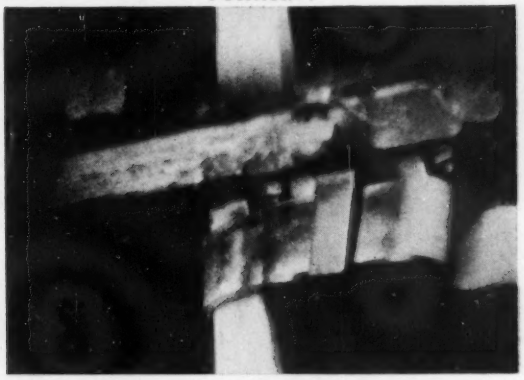
Position 3



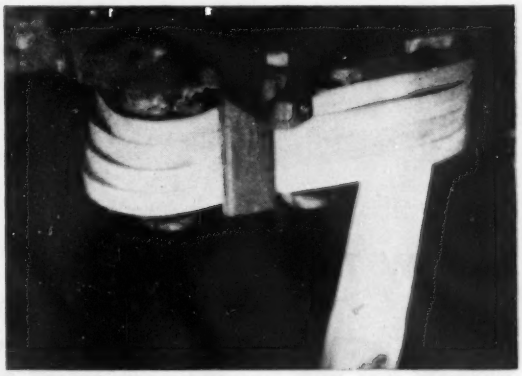
Picker stick still moving slightly to right. In top photo, the picture is made from opposite side; note beginning of strap flexing. (Lower photo, snubbing action between fingers is bringing stick to controlled stop.)



Position 4



End of picker stick travel; single check strap has not returned to shape after flexing. (Lower photo, each band moves independently of the others; all four are in contact with stick, distributing the impact.)



THE PHOTOGRAPHS on these pages show the action of the picker stick on two types of check straps in current use by textile weavers. The photos are not clear because they are blown up from 16-mm motion pictures made at 3,000 frames per second.

The four different positions of the picker stick are identical for each type of strap illustrated. The top pictures are of a conventional, open-end leather strap used by the industry for many years.

The lower pictures are of the comparatively recent strap(s) made by Dayton Rubber Company of alternate layers of neoprene and specially designed fabric with several loops of cord at the center.

Users of the neoprene-fabric multiple check straps estimate an increased life of two to three times the conventional check strap, and savings in some instances are said to be $5-6 per loom per year.

Instead of the single wide strap, the new strap may utilize three and sometimes four individual endless bands on each side of the loom. The uppermost band is at a wider point on the picker stick's arc of travel and is the first one brought into play, the impact being absorbed in varying degrees by each of the freely moving bands. This is said to make for more even distribution of the load.

In the research to develop the neoprene-fabric strap, engineers endeavored to design a strap which would be less susceptible to flexing, heat build-up, weave room humidity, and the impact caused by the shuttle on high speed looms. Their solution was the product of the loom itself—fabric —in combination with rubber (neoprene is a chemical rubber).

In addition to long flex life, neoprene has good heat resistance, and resistance to oil, grease, and many chemicals. Also, check straps made of neoprene-fabric are unaffected by temperature or humidity.

In use on the loom, breakage of one of the multiple straps does not necessarily mean the loom will stop; the remaining two (or three) straps usually permit the loom to function until the broken strap is replaced.

Installation of the multiple check strap on a loom requires an extra set of fingers for the conversion. This can be done on most looms in a few minutes.

How twistless yarn is made by the Tek-Ja Process

Staff Prepared

EXCLUSIVE

A NEW TWIST . . .

NO TWIST

MANUFACTURING data on the Tek-Ja yarn machine obtained during 7 years of development by Fiberbond Laboratories, Inc., Watertown, Mass., and in the past year by Philadelphia machine-builder Proctor & Schwartz, points to certain basic differences from conventional spinning. The new yarn-producing concept bypasses certain problems such as spindle-speed limitations and the design of spinning systems for a specific type of fiber. However, other problems remain to be solved, including development of a technique for piecing ends-down.

Spinning Experience. To date, most data have been collected on 3 machines: the original model at Fiberbond Laboratories and the two prototypes of 200-end units in operation at Proctor & Schwartz.

The accompanying illustrations were made on the prototype at the main Proctor & Schwartz plant in Philadelphia. This is a 24″ delivery machine capable of running 200 ends of fine yarn; but when producing 30s yarn, it can accommodate only 100 ends. Thus, it can be seen that the maximum number of ends which can be processed at one time on the machine is dependent on the size of the yarn being bonded.

Cotton, acetate, rayon, and their blends have been run extensively; rayon runs particularly well. Wool and the newer synthetic types have also been run; no trouble is foreseen for any fiber or fiber blend.

Staple lengths most run to date now have ben 1 1/16 to 2½ inches; the draw zone of the machine is such that lengths up to 3¼ inches can be run.

Counts made range from 1s to over 100s with the high and low numbers considered fringe items. The roll surfaces on the Philadelphia prototype have more or less limited this range to from 10s to 80s.

Machine Characteristics. Yarn delivery speeds up to 30 to 40 yards per minute have been run so far. Speed seems to have little bearing on yarn quality.

For the cheese wind-up now used, the bonding machine requires a distance of 4 inches between adjacent package centers. This represents a small lateral floor space requirement; experience to date seems to indicate that a two-tiered wind-up unit is the best.

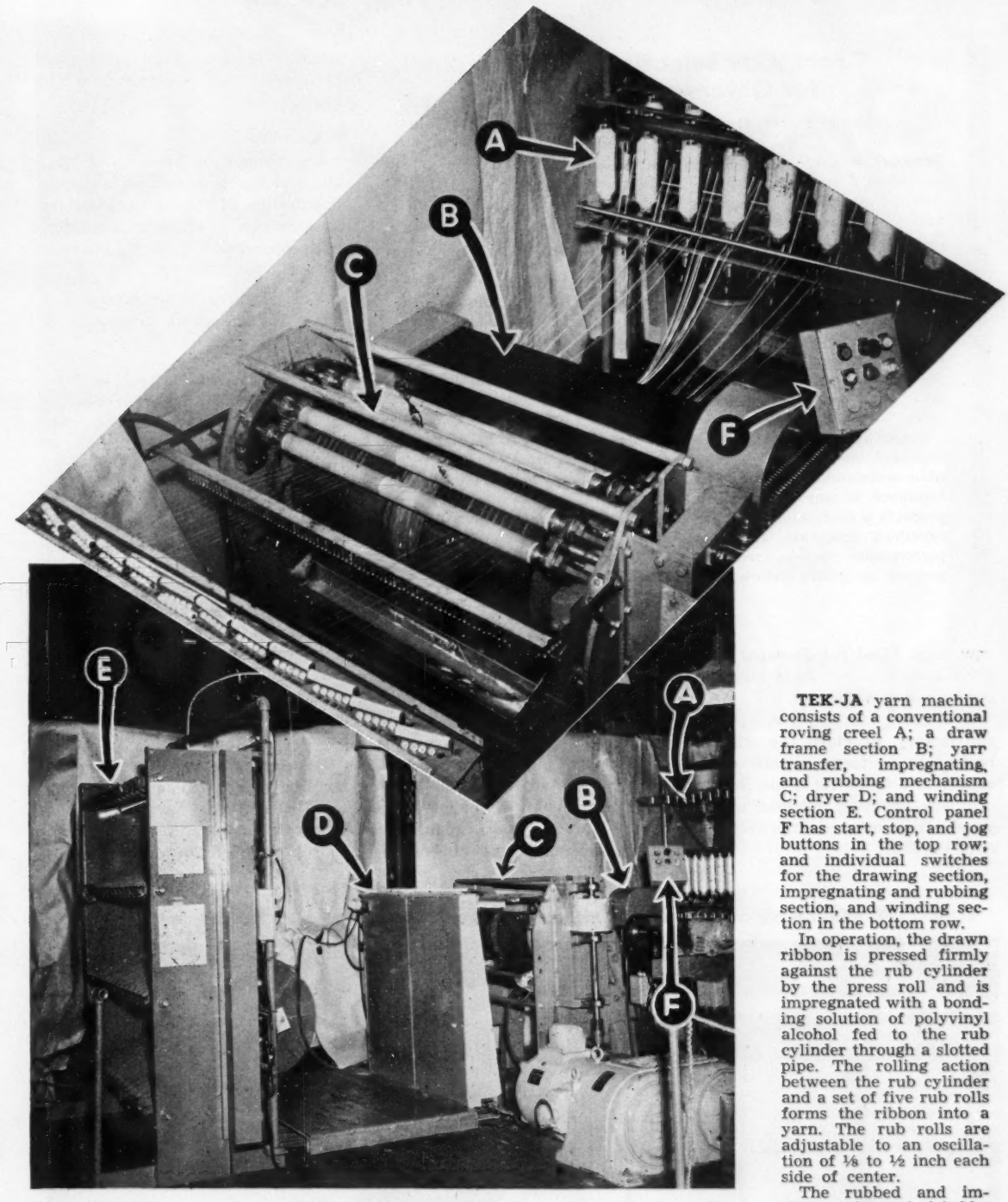
It is expected that one operator will tend 800 ends, with starting and stopping being about the only service required of a tender.

Unless roving is poor, the Tek-Ja machine does not normally break ends because of the standard mechanical causes for yarn breaks on a conventional processing machine. If draft settings are too high, or if the bonding solution gets out of control, ends in the entire machine can come down. In any event, the high speed of the machine at present requires scavenging whatever ends do break during properly set and fed Tek-Ja machine operation. Piecing an end "on the fly" is impractical.

The current set-up on the bonding machine is for 3-pound package delivery. Because it delivers a free end, however, put-up on cheeses, cones, beams, tubes, and in cans is practical.

Yarn Characteristics. The general distinguishing characteristics of a bonded yarn are its freedom from fiber protrusions and its loft.

Staple length, not twist or bonding finishes, is the basic determinant of yarn strength in a knitted or woven fabric, and this characteristic is subject to considerable variation, depending on choice of



TEK-JA yarn machine consists of a conventional roving creel A; a draw frame section B; yarn transfer, impregnating, and rubbing mechanism C; dryer D; and winding section E. Control panel F has start, stop, and jog buttons in the top row; and individual switches for the drawing section, impregnating and rubbing section, and winding section in the bottom row.

In operation, the drawn ribbon is pressed firmly against the rub cylinder by the press roll and is impregnated with a bonding solution of polyvinyl alcohol fed to the rub cylinder through a slotted pipe. The rolling action between the rub cylinder and a set of five rub rolls forms the ribbon into a yarn. The rub rolls are adjustable to an oscillation of ⅛ to ½ inch each side of center.

The rubbed and impregnated yarn is dried by hot air as it passes through individual Pyrex tubes in the dryer. The yarn is then carried through copper or aluminum tubes to the winding unit. Because of the close package centers (4 inches), a wool-type winder is used on the prototype unit and is fitted with individual spring guides and cores for cheese winding.

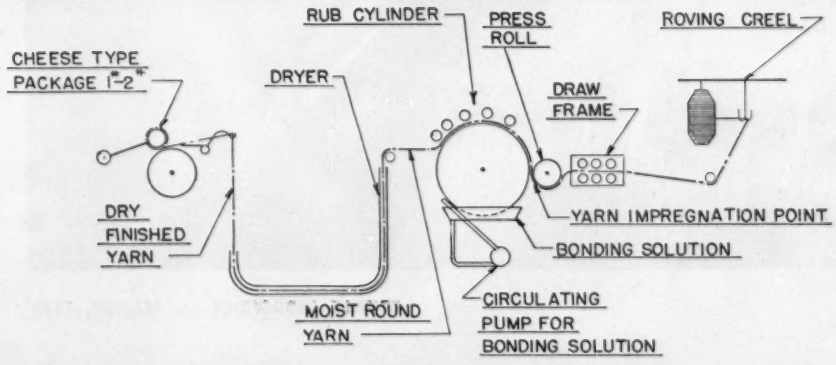


Chart Aids Selection of Blends for Outerwear Fabrics

The Textile Fibers Department of E. I. du Pont de Nemours & Co., Inc., recently published a guide to the selection of blends for outerwear apparel fabrics in the form of a four-color chart entitled "Properties of Blended Fabrics." This information is made available, the company said, "to promote better use of today's materials for the development of fabrics that are not only useful and beautiful but sound in performance and consumer dollar value."

Fabric property levels are illustrated by means of a color code—outstanding fabric performance in any given fabric property is represented by blue; excellent, moderate, and poor performance levels are expressed as green, yellow, and red respectively. Property levels for fabrics containing 100% of each fiber used individually are also shown.

Performance characteristics including texture, liveliness, bulk, wrinkle recovery, press retention, stability, strength, abrasion resistance, static resistance, and melt resistance for the following blend fabrics are represented by blend spectra: Dacron/wool; Dacron/rayon; Dacron/acetate; Dacron/Orlon/wool; Dacron/Orlon/rayon; Dacron/Orlon; Orlon/wool; Orlon/rayon; Dacron/rayon/acetate; Dacron/rayon/wool; Orlon/nylon; nylon/rayon; nylon/acetate.

Optimum blend compositions based on the best combination of fabric properties are indicated for each blend series.

raw stock. Plied Tek-Ja yarns have given excellent results in strength performance in fabrics.

Evenness results have been satisfactory, provided the original roving is uniform, within draft ranges of 6 to 15. As is the case in ordinary spinning, combed cotton yarns show marked improvement over carded.

Yarn Cost. Figuring about the same initial investment per wind-up unit as for any other yarn-making system, several factors point to low per-pound yarn costs, particularly in the finer count category: delivery speed can be the same for the entire count range manufactured, floor space required is small, cost of bonding solution is about 1½¢ per pound of yarn, and maintenance is negligible.

Knitting. The normally used count ranges in knitting of 15s, 20s, and 30s fit in well with output possibilities of Tek-Ja. Lubrication, as is the case in all yarns, is needed with the bonded yarn to prepare it properly for knitting.

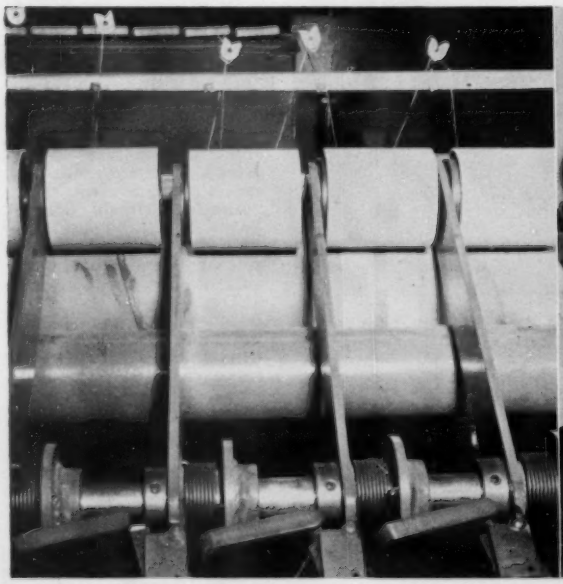
The features of evenness and loft are particularly adaptable to knitted fabrics.

Weaving. In most trials to date, the bonded yarn has been used as filling. It weaves well and its softness has been advantageous in traditionally hard fabrics such as duck.

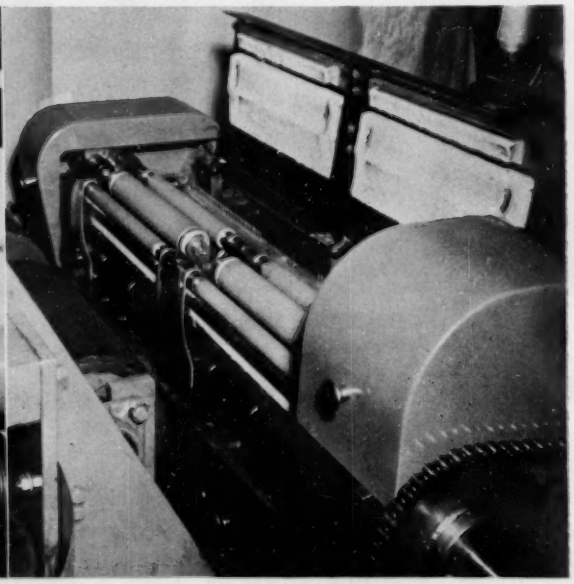
The Future. It is expected by the machine builder that speeds up to 70 yards per minute will eventually be possible through refinement of the drying mechanism. Because of the critical nature of temperatures and distribution of the bonding solution, installation on a large scale will probably call for a laboratory control of these factors.

Development of a permanent bonding agent will open the door to two fields: tire cord and other industrial uses, and use of very short staple lengths.

WOOL-TYPE WINDER has cores for cheese winding.



DRAW FRAME has modified 3-over-4 drafting system.



Believe it or not . . .

These floors are 29 years old

(A case for sealed floors)

Staff Prepared

EXCLUSIVE

IS FLOOR MAINTENANCE a problem in your mill? If so, perhaps it will pay you to spend a few moments studying this case for sanded and sealed hardwood floors.

It was the latter part of 1947 when the decision was made to go ahead with the plan to sand and seal the then 22-year-old maple floors in American Thread Company's Dalton, Ga., mill where both carded and combed cotton yarns are produced. And the results have been entirely satisfactory, not only from management's viewpoint but supervisors' and operatives' as well.

Here are some of the reasons:

A full-time floor maintenance crew is no longer necessary. (Scrubbing in the conventional manner was the practice in this mill before the floors were sealed.) When refinishing of floors is required, spare operatives are utilized and work is scheduled by specific areas on week-ends or nights so that production is not interrupted.

Housekeeping throughout the mill is now much better. The excellent condition and attractive appearance of the floors make the operatives conscious of management's efforts to keep the plant clean. Consequently, they respond by keeping machinery and equipment clean too. Some of the employees have expressed their appreciation of the floors in this manner: "We *work* on better floors than we *live* on, and we are grateful for this."

There have been fewer accidents attributed to the condition of the floors. Not a single operative has reported a splinter in his foot since the floors were sanded and sealed. Feet do not slip out from under employees nearly so often now—because of the high gloss finish, the floor appears to be slick, although it is not; as a result the employees are continually on the alert to walk carefully.

Grease and oil do not soak into the floor and have no effect on the finish. The same is true with acidic materials. These can be readily removed by damp mopping.

More sanitary conditions prevail throughout the mill since operatives hesitate to expectorate on these attractive floors. Should saliva get on the floors, it cannot soak into the wood and can be easily mopped up.

Less effort is required on the part of operatives assigned to sweeping floors. Thus more sweeping cycles are made in a given period so that a cleaner mill results. (Some mills may find that sweepers can be assigned other duties such as sanitizing rest roms, cleaning bobbins, etc.)

How Floors Were Sealed. Initially, the floors at the Dalton plant were sanded and sealed by the following procedure:

(1) Nails were countersunk into the floor.

(2) Floors were sanded with

Unions Urged to Champion New Technology

Trade union leaders have been urged "to shed their pessimism over modern technological developments and to welcome the growth of automation and other new production tools as a boon to America's working men and women."

The appeal was made by Elmer F. Twyman, vice-president of The Yale & Towne Manufacturing Co., in a prepared statement released in Chicago at the opening of the National Plant Maintenance and Engineering Show last January. Mr. Twyman is in charge of Yale & Towne's domestic plants producing modern materials handling equipment.

Pointing to the published proceedings of the Sixteenth Constitutional Convention of the CIO held last December in Los Angeles, Mr. Twyman recalled that the CIO president and the Convention in a resolution had voiced concern over current technological developments. Mr. Twyman said that the trade union leaders apparently see in these tremendous evolutionary strides some chance of dire consequences for the working people of America.

Stating that all responsible leaders agree the new technology "must be met and managed by wisdom and courage," Mr. Twyman urged confidence in the industrial statesmanship available in the United States. He pictured among the benefits of the new technology a great prosperity and the elimination of both enervating work fatigue and industrial accidents, two of the "costliest and most socially wasteful by-products of an industrial society."

"A healthier, less tired, more alert population, with adequate leisure, strengthened by universal education, is capable of reaching the highest level of living imaginable," Mr. Twyman said. "With the eradication of human and economic waste through technology, goods and services will be produced at lower costs, and they will be consumed in the greatest abundance. . . . I am confident the new technology will bring more and better employment and a prosperity for all greater than we have ever known."

coarse sand paper.

(3) Floors were then sanded with a medium sand paper.

(4) Floors were finally sanded with a fine sand paper.

(5) First coat of floor sealer was applied and allowed to dry for four hours.

(6) Floor was then dry cleaned with steel wool, closing the pores of the wood.

(7) Second coat of floor sealer was applied and allowed to dry for eight hours.

(8) Then a finish coat of floor sealer was applied and dried for eight hours before traffic was permitted on the floor.

← **NO WARNING WAS GIVEN** card room overseer F. H. Howard of American Thread's Dalton plant that the photos used with this article were to be made. When he was told that one of TI's editors was there to photograph the floors in his department, he simply asked for the time to permit the sweeper to go over them once. Look mighty good for 29-year-old floors, don't they?

Since 1948 floor conditioning materials manufactured and distributed by The Selig Company of Atlanta, Ga., have been utilized at this mill in the manner indicated in the paragraphs which follow, describing how the floors are maintained daily and the procedure for refinishing them.

Daily Care. One sweeping cycle every eight hours is made with an 18″ or 24″ cotton mop instead of the regular corn broom or plow.

Once every 24 hours this cotton mop is treated with Flortone, a product which removes the grit and other impurities from the surface of the floor, hardens the surface of the seal, and gives the floor a high gloss or polish.

To apply this Flortone, the operative simply uses an ordinary hand-operated spray gun like those used for atomizing fly and other insect-killing solutions.

Removal of oil, grease, and saliva from the surface of floors underneath and between the processing machines where there is no heavy traffic is easily accomplished by damp mopping with a solution of water and Klenexo powder.

Refinishing. The frequency with which the floors require refinishing depends entirely on the amount of traffic on them. Heavily traveled main alleys in this mill are refinished on an average of once every six months. Alleys between machines such as cards, fly frames, etc., on which traffic is not so heavy are refinished at intervals of nine to twelve months. There are some areas — underneath frames and around some machines where it is seldom necessary to walk—that have not yet required refinishing.

The procedure for refinishing is as follows:

(1) Dry clean the area to be refinished with steel wool.

(2) Apply a coat of Floroseal and let it dry for a period of eight hours before traffic is permitted.

(3) Finally apply a second coat of Floroseal, also allowing it to dry for at least eight hours before anyone is permitted to use the floor.

By M. R. Harden

EXCLUSIVE

Mr. Executive

"Mighty oaks from little acorns grow"

Likewise, by watching the little points in manufacturing—the ones the other fellow considers trivial—you can

MAKE BETTER CLOTH

RECENTLY at one of our quality meetings we had an impartial visitor present, one who knew cloth well. We had previously secured liberal samples of fabrics identical to our own (same construction, shade, etc.,) but which were made in five other plants.

All cloth samples were numbered and so arranged that there were no visible markings or labels, and each of our foremen and our visitor were asked to go into the room and grade the six samples for quality, finish, color, hand, etc. With one slight exception every man came out with the samples listed in the same order, with the number one sample shown as being far superior to all the others.

The question was raised, and became the center of much discussion, "How can one mill make the same fabric so much better than the others?" There must be a reason, or reasons, and we wanted to know why.

A careful study of the machinery layout, the processing, and practices employed in a plant which is producing a far more acceptable quality of material rarely shows up anything that is radically different from the others. So often it is a chain of several little things which sum up to make that difference.

We shall not attempt a complete discourse on the subject of good manufacturing, but rather shall give some of the interesting highlights on things that we found made a difference in our mill.

Starting Right. There is no question but that the cotton we use makes a difference, but let us assume that each mill's cloth in the aforementioned comparison was made from the same cotton. Then, the first thing of importance is a good mix. Unless we have this in the very beginning we may expect the weights to vary and irregularities to prevail all through the subsequent processes.

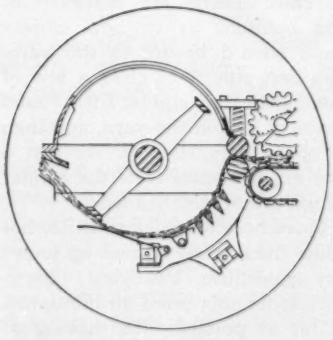


FIG. 1. Reduction in beater speeds, or even the elimination of some beaters, will show up in a cleaner card sliver.

We need to know something of the desired end requirements before we start to make any fabric. For instance—do we want a warp cover or a balanced fabric? What is the cloth to be used for—work clothing, dresses, awnings, linings, draperies, upholstery, etc? How important is resistance to abrasion, stretch, tensile strength, weight, hand, and other factors?

In our case we wanted a good warp cover; clean appearance; good wearability; rich, deep, tub-fast color; and a medium soft but bulky hand. In order to accomplish these we naturally directed most of our attention toward these ends.

Because our cloth was to be a twill, the warp to be dyed dark shades, and most of our filling to be white (natural), we selected the cleanest cotton for our filling mixes. Our warp cotton was selected for staple, but it was also the trashiest. In many cases the reverse selection would be made. It is usually preferable to use the best staple in the warp for better production in weaving, regardless of other factors, but for other reasons this cannot always be done.

Cleaning. Many of us have made the mistake of beating our cotton too much. Excessive blows per inch tend to break up the foreign matter and make good carding difficult, or impossible. We have found in many cases that a reduction in beater speeds, and even the elimination of some beaters gave

us considerable improvement in the cleanliness of our card sliver.

We are ardent believers in the frequent patrolling and examination of our card webs. We always carry a little check sheet along and note the numbers of the cards which are not turning out good webs and the apparent cause. These are turned over to the grinders for correction, and checked again on the next patrolling.

Tests. Tests are carried on continuously in our plant, most of them under standard laboratory conditions. These are made on laps from each picker daily. Samples are taken from cards, drawing, roving, and spinning and processed on our Uster tester on a continuous basis. In addition to these we keep a person regularly employed on ends-down tests and loom-stops tests.

Bobbins. Good bobbins are expensive, but so are bad ones if used. It does not pay, when quality is affected adversely, to continue to use defective and substandard bobbins. Cull them out frequently by using standard size gauges and inspecting for chipped and split ones. Tests have shown extremely uneven yarns to have been caused by bad bobbins. The roving is stretched by varying tensions and lays, and the twist will run to the smaller diameter places, causing what we refer to as a "link sausage" appearance.

Flyers and Rolls. Flyers with rough tops, and those which are out of balance, or need blocking, cause variations in the roving. Worn pins also cause the flyers to shake and affect the evenness. Eccentric rolls should be promptly replaced, since these also cause uneven roving and result in long thick and thin places in the yarns, especially those spun from single creel.

Tension on Roving. It is perfectly good and economical manufacturing practice to run as little twist as possible, and most of us try to do this. We must, however, be very sure there is not undue tension on roving as it turns in the creels. Many plants use skewers. Others have changed to the suspension type of holder.

In the case of wooden skewers, we should watch the points and the steps closely, being sure that they turn freely. The tips can now be reconditioned by using a fiber tip replacement.

We consider the ball-bearing suspension type of holder a good investment and would recommend to plants using skewers a changeover to these on a gradual replacement basis.

Frame and Overhead Cleaners. Frame and overhead cleaners have now come into general use and are contributing greatly to improving the yarn quality. Some of the newer developments are jets of air directed towards almost every point on the creels and on the frames right down to the rockers. This is done by means of flexible rubber hose. At the same time the ceilings, pipes, conduit, and all overhead surfaces are kept blown reasonably clean.

We encountered one very disturbing problem which we finally solved. The air jet which was directed at the creels cleaned the creels nicely but caused the roving to run off too freely as the blower passed. These ends would lap up and break down others. Fig. 2 shows a means of preventing this. We have used this successfully for some time now. An additional but smaller creel rod was installed to give a new contact point for the roving as it was drawn off the bobbin and through the trumpet.

Organization of Processes. While it is quite obvious that the proper twist, drafts, roll settings, and weights are important to produce a good quality yarn for cloth, many times some of these require study and revision.

For example, if too high a twist multiple is employed in an attempt to increase the efficiency of spinning, the individual end break factor drops sharply after it reaches a certain point. Hard twist might impart greater abrasive qualities, but almost invariably the woven cloth loses that often-desirable lofty hand because of the hard twisted yarns. Excessive twist also magnifies the appearance of slight variations in the yarns and gives an uneven appearance to the cloth.

Experience has taught us that until recent years the manufacturers of carding and spinning machinery have not used enough weight on the top rolls to give the best drafting results for many yarns. Our yarns were improved greatly by simply adding a little weight to these rolls.

Buffing Top Rolls. We recently made some exhaustive tests, comparing the yarns spun just before and right after buffing cork and composition top rolls. We knew there would be an improvement after buffing, but were amazed at the consistency and degree of improvement.

Our rolls had been buffed three times per year (10s to 20s yarns, 3 shifts). This was not often enough, for two reasons: (1) The coverings were worn so that we had to take off too much in order to grind out the concave middle portion of the roll surface, and (2) for some time prior to buffing we had some lumpy drafting.

We changed our buffing schedule to four times per year and so arranged the cycle as to finish the last frame just at the end of the 3-month period. This gave us a normal or average spinning condition throughout the year. Just enough of the roll surface is ground off to level the lateral surface and take out any hard or sleek spots.

Snick Plates or Slub Catchers. Your snick plates, or slub catchers, are the best monitors or "police" protection against slubs and bunches. There are many rules and opinions as to how closely these should be set to the yarn. The best rule is to close a few of them until they slip up little round beads of lint on the yarn, and then to open them slightly. By just a few experimental tests the proper gauge can be determined.

From here on, *stick to it.* Do not allow them to be opened up under any conditions. Use your experience from this point to eliminate, as far as possible, the making of these bunches in the carding and spinning departments. Weaving production will be better and far

less burling will be required, thereby making up, many times over, any production loss at the spoolers or winders. For quality's sake we would never compromise on these settings.

Good Harnesses, Reeds, Tension. Keeping harnesses clean and in good repair means much in quality production. The same is true for reeds. Bent or worn heddles or drop wires should be replaced after harness are cleaned, following each warp run-out. These not only give poor weaving results but cause marks and streaks in the cloth.

Warp tensions should be regulated so as to keep an equal tension on the beams and on all ends. The plush, fur, and/or bristles should be the same in all shuttles for the same filling yarns and the same looms.

Cover. In the manufacture of print cloths, sheeting, bag material, and many other fabrics, cover is of little or no importance. For twills, suitings, etc., it is a different story. A good cover often makes the difference between two mills' products—a difference that spells acceptance for the cloth having the best cover.

Usually when we speak of cover we mean the cover made by the filling, and the softer the filling the better the cover. There are, however, many warp-covered materials. Usually the desired cover can be obtained by raising the whip roll, so that when the shed is open the bottom half of the shed is tighter than the upper half (see Fig. 4).

The timing of the shedding cams also has an influence on cover. There are three timings: early, medium, and late. In most cases a medium to late timing will improve the cover.

Loom Inspection. We believe that one vital link in our quality control program is our inspection of the cloth at the looms. The overseer and his assistants take turns at inspecting each loom so that each loom is examined every two hours. If a loom is found to be producing imperfect cloth, it is stopped and flagged for the fixer, or called to the attention of the weaver for correction. A note book is used and a record made of each such finding.

Brush and Shear. A good combination brushing and shearing machine will contribute greatly to improved cloth appearance, and will reduce the labor required in burling and stringing. In the brushing section we prefer the ball-bearing-mounted nylon brushes. There should be ample suction for the prompt removal of lint and string, or the separation of these from the cloth will be of little value.

Where the older style brushes are in use a great deal of improvement can be made by putting an 8" nylon brush between the brushing machine and the roll-up head. This will knock off a great many specks and loose strings which the machine does not always get. This roll should be driven from the roll-up head (it stops when the cloth stops) and should turn in the opposite direction from the cloth travel.

Singeing. The appearance of many fabrics, and the sales appeal of garments made from them can often be improved by gas singeing. Generally only the face of the cloth is exposed to the flame.

There are several types of applications and the one most suited to the plant may be selected. The process is usually used in tandem with the finishing range and immediately preceding it. These can be fired by vaporized kerosene, "bottled gas," or if available, by natural gas.

The speed of the cloth, the proximity of the flame, and the flame intensity must be regulated to meet the requirements, but so regulated that the cloth will not be smudged. All singeing machines now have automatic cut-off valves and cloth releases to prevent scorching or burning, if for any reason the machines must be stopped. The newer premix burn-

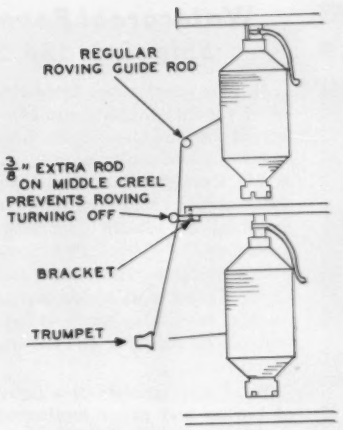


FIG. 2. An extra creel rod installed as shown will prevent air jets from overhead cleaners causing roving to run off too freely.

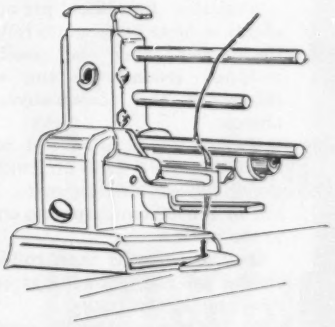
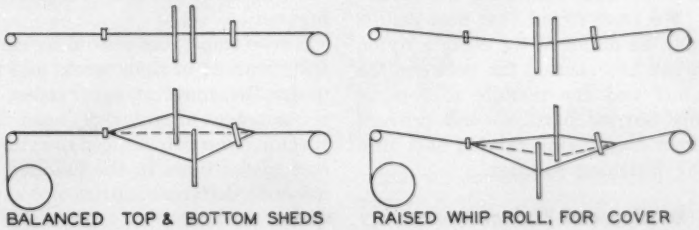


FIG. 3. To set snick plates: close them until they slip up little round beads of lint on the yarn, then open them slightly.

FIG. 4. Better cover can be obtained by raising the whip roll of the loom, so that when the shed is open the bottom half of the shed is tighter than the upper half. Caution: overshots will result if the top shed becomes too slack.



Waterproof Paper Lined Covers Solve Shipping and Storage Problems

A waterproof paper lined rug cover for the shipping and storage of various sized cloth rolls is being successfully used by A. & M. Karagheusian, Inc., and other carpet manufacturers for handling broadloom carpeting, according to Bemis Bro. Bag Co. of St. Louis, supplier of the cover. Labor and space-saving factors have also made it advantageous for upholstery manufacturers.

The cover consists of a layer of burlap and paper laminated together with asphalt. This construction provides a flexible cover that will not break or puncture easily. It also provides extra protection against moisture.

Available in either pre-cut sheets or large wide-width rolls, the cover may be easily wrapped around the rug as shown in the accompanying photos.

(1) The cover is spread on the floor and a fork lift truck slowly lowers, for example, a roll of broadloom carpeting onto the cover.

(2) The cover is then rolled around the rug, with the paper side against the rug.

(3) The uncoated burlap overlap is sealed with a latex adhesive. The rug cover fits so snugly over the roll of carpeting that the roll cannot telescope and damage the tuft and pile.

(4) One end of the roll is tied with wire, but the other end is left untied so the lift truck can be inserted into the core around which the carpeting is rolled. The final closure of the untied end is not made until the roll has been placed in the freight car or truck for shipment.

The simple closure requires less time. Considerably more goods can be stored in the same space. The lighter weight of the cover means less shipping cost.

ers can be set for automatic air regulation.

The singe takes away the little surface fuzz and presents a clean, true color material. It also sears away many little bits of trash or foreign matter without weakening or otherwise damaging the cloth.

We have found that best results may be obtained by using a nylon brush and suction fan between the singe and the mangle to remove any burned particles and prevent them from being carried over into the finishing solution.

Burling and Fixing. The quality of work done by the burlers and fixers is important. If a bunch of yarn is burled out carelessly, and in so doing the adjacent ends are broken, no amount of combing and fixing can rectify the harm already done. It is better that it not be done at all than done in a careless manner.

These employees should be carefully trained in their work, and be under the constant supervision of a competent director or head inspector, who can answer questions and advise them in the manner of handling different fabrics or conditions.

Light Bleach Over Vat Colors. A little idea which we picked up in finishing some time ago, and used very successfully, was lightly over-bleaching cotton goods containing vat colors. Of course the cotton had been bleached previously. For instance, on handkerchief cloths with vat colored borders, we simply passed the material through a vat of about 5°Tw chloride of lime bleach and a wash before tentering. The colors were bloomed up beautifully and the material was much more attractive than the same patterns offered by our competitors.

Hand. We hear a great deal about hand, meaning the feel of the finish to the hand. There are requests for such finishes as "a good drape," "heft," "leathery feel," "boardy," "meaty," "crunchy," and the like. Most of us have come to know what is meant by these terms, and our finishers, with a little assistance from the manufacturers of finishing materials, can usually produce the hand that is wanted.

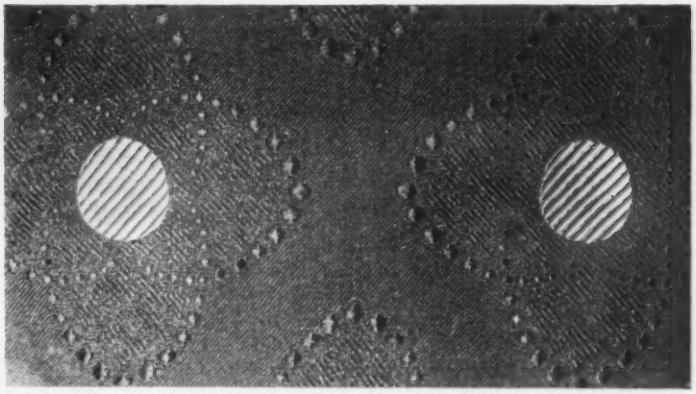
We have noticed a marked tendency away from the fillers and some of the heavily starched finishes which were common in the earlier years of our textile industry. There are of course some requirements for these finishes in the trade, but they are no longer used in an attempt to deceive the buyer into thinking he is buying cloth when in reality he is paying for a quantity of china clay, heavy salts, etc.

Our chemical engineers have developed some splendid mineral and vegetable oils, resins, and synthetics which have almost revolutionized the finishing business. These have also made the textile fabrics of today more attractive and more serviceable.

There is an old adage that if you make a better mouse trap, the world will beat a path to your door. This is in a measure true in the textile business. The mill that gets the orders, and keeps satisfied customers, must continually strive to do a little better job than the others in today's highly competitive market.

Staff Prepared

EXCLUSIVE



TOTAL ELONGATION of circles, as in this photo, results when there are too many picks per inch, regardless of the relationship of the various weaves to each other.

JACQUARD DESIGNERS . . .

Circle Elongation Can Be Corrected

IN JACQUARD designing work where a circular figure is desired in a fabric and is surrounded by a variety of loose and tight weaves, particularly where the weaves are of uneven area ratios to each other, the circle can elongate considerably in weaving, even when the point paper is laid out for a perfect circle. This problem can usually be solved by the addition of a few "dead" picks at the top of the circle, plus a reduction in ground pickage in some cases.

This method, practiced by Textile Designing Co., Paterson, N. J., is based upon the following explanation of the source of the trouble: if, for example, a filling float circle is designed on an 8-harness satin platform, all of which is on a plain weave ground, and the platform is not symetrically placed around the dot, as is often the case, picks will enter the cloth more easily at points where there is more satin than plain weave.

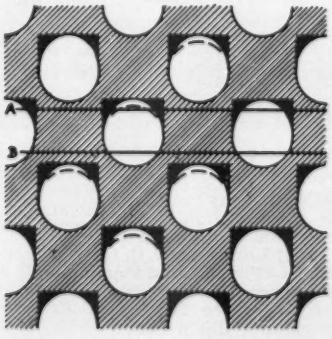
In cases where there is an abundance of tight plain weave, the picks per inch tend to build up to more than that set by the pick wheel, and when the ratio of tight to loose weave reverses, that is where there is an abundance of loose weave over tight, the packed picks tend to spread into the cloth, where they meet little resistance from the soft weave. This results in elongation of any figure placed in that area, and if that figure is a circle the bottom half of the circle usually weaves properly and the top half is elongated.

In cases where there are just too many picks per inch for the cloth, the entire circle may be elongated. This is remedied by reducing the pickage and redesigning for the new pickage.

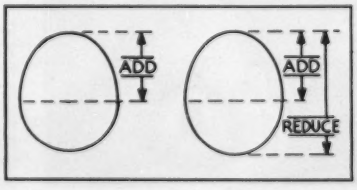
Where it is a case of uneven tightness ratios, a few dead picks added at the top half of the circle will stop the elongation. These dead picks are usually controlled by a spare hook in the Jacquard head so that where its needle hits a hole cut at that point in the card, a cord attached to the pickwheel pawl is raised and there is no take-up movement for the pick following that being shot, and the cloth therefore is given double pickage at that point. By adding a few of these dead picks at the top of the circle the spreading tendency of the picks in the soft areas is thus stopped.

The accompanying illustrations show how these conditions appear and are corrected.

ELONGATION OF TOP HALF OF CIRCLE occurs where there is a change from a predominance of tight weaves (line B where white is circle figure, and gray is plain weave ground) to a predominance of loose weaves (line A where white is circle, black is satin platform, and gray is plain weave ground).



DEAD PICKS ADDED in the zone marked "add" (left) will correct elongation of top half of circle. Total elongation (right) is corrected by reducing pickwheel to affect the entire length marked "reduce," and if top half is still elongated dead picks are also added in zone marked "add."



Pennsylvania mill employs these five

ways to get uniform

SKEINS of uniform length and weight are produced at Lorraine Yarn Mills, Inc., Philadelphia novelty twisting mill, through a five-point control that stresses attention to bobbin-to-bobbin yarn loading in first twisting operations.

The yarn, a worsted ratine weighing 3200 yards per pound, is being produced for the knitting trade. It is put up for dyeing on 9-oz skeins on a 72-in. reel, after having been fancy twisted.

The twisting consists first of combining one end each of 1/15s and 1/24s Australian stock from one-pound spinner tubes in a ratio of 9 to 5 back to front roll speeds, at 20 tpi S twist. The resultant yarn, somewhat tightly twisted, is then opened and locked in retwisting by combining with an end of 1/24s (same stock) with 7 tpi Z twist.

The skeins are reeled, sent to the dyehouse, and returned to the winding department for softening and put-up for shipping.

The Controls. Since dyeing time for light skeins is less than that for standard weight skeins because of different penetration rates, uniform skein length is directly related to dyeing quality. This fact led Lorraine to include certain controls in its 4000-spindle twisting operation.

1. **Use top-grade components**
2. **Time twister frame doffings**
3. **Check spindle speeds daily**
4. **Check reel circumference daily**
5. **Weigh finished yarn**

Staff Prepared

EXCLUSIVE

Breaks in any multiple end process will cause unevenness in package loading on any one doffing. Purchase of component yarn, according to Arthur LaPierre, company president, is an important factor. Since all three components are fed single, and two of them are comparatively fine, top grade worsted must be provided to minimize the chances for breaks.

For this particular yarn, a first twisting time cycle has been established at two hours. The first operation is the most important, since variations in it are magnified in subsequent processing. A chart on each first twisting frame is maintained by tenders who record start-stop time from the wall clock. This provides a positive device for running all doffings for the same length of time.

Spindle speed variations are checked daily on a spindle-to-spindle basis with a Stroboscope to pick up and correct variations that will show up as bobbins of higher or lower than standard weight.

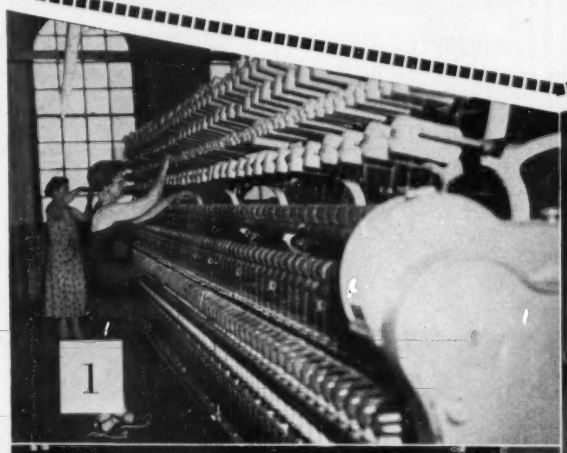
The actual preparation of the skeins in the 800-spindle reeling department is a simple matter if bobbin weights at first twisting and retwisting have been held constant. One point that is checked daily is reel circumference. This test, against a 72-in. standard, is made in three places along each reel.

Skein length is measured as reeled, by a counter with a pull-type indicator attached to the end frame. The arm of the counter is connected with a spring to the oscillating bar which houses pig tail yarn guides, so that one revolution registers every time the bar moves to the farthest point of its path.

Yards per pound are checked on skeined yarn ready for shipment to the dyer. Besides testing for uniformity of product, this detects any defective spinning sides that would cause unevenness in skein-to-skein weight where skein-to-skein length might be uniform.

← **PLANNING** novelty twist yarns requires consideration of several viewpoints. Involved in this discussion at Lorraine are (l. to r.) Arthur LaPierre, president, Nathan Zucker, secretary and treasurer, Lawrence LaPierre, and (far right) William Ross.

novelty yarn skeins

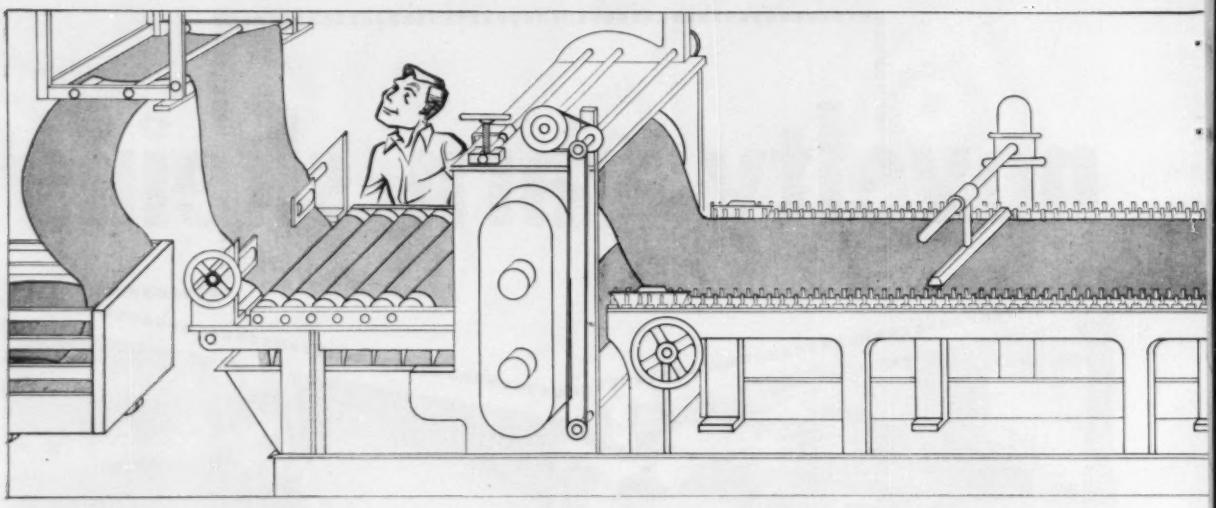


1. FIRST TWISTING is a 20-turn operation in which back to front roll speed ratio is 9 to 5. Note uniformity of package-to-package size on creel banks. Yarn strength plays an important part here in evenness of yarn length on twister bobbins.

2. RETWISTING spindles are checked for rpm variations with Stroboscope. This is a daily procedure for all twisting spindles. Retwisting frames are identified by a painted yellow spot on frame ends.

3. REELING the 3200-yard worsted ratine can cause variations in the 72-in. reel diameter. All reels are checked daily in three places and adjusted to compensate for any deviations.

4. YARDS PER POUND of each doffing are checked to spot heavy or light spinning. This can also help to keep skeins uniform, since it detects variations in weight of skeins that are of the same length.



Practical Piece Goods

MERCERIZING of piece goods poses hundreds of practical problems.

Most are related to comparatively simple things. For 25 years the writer has been concerned with the practical and thoretical aspects of mercerizing. He has been asked many questions but a certain few important practical ones are asked time and again. In this article he lists these questions and attempts to give the answers.

I. Why Mercerize?

Mercer's original invention which involved the treatment of cotton fabrics with strong caustic soda without tension was carried on mainly to obtain an increase in strength and dye affinity. The application of tension to the cotton during caustic treatment was not made until almost half a century had gone by, and produced lustrous fabric which we today call mercerized cotton.

For over 50 years high luster has been, and still is, the main reason for mercerizing most cotton fabrics; for luster is the one attribute of mercerizing recognizable to the consumer. Only in certain special cases where strength is important, such as in the manufacture of parachute cloth, is mercerizing carried on mainly for the improved strength obtained in the goods.

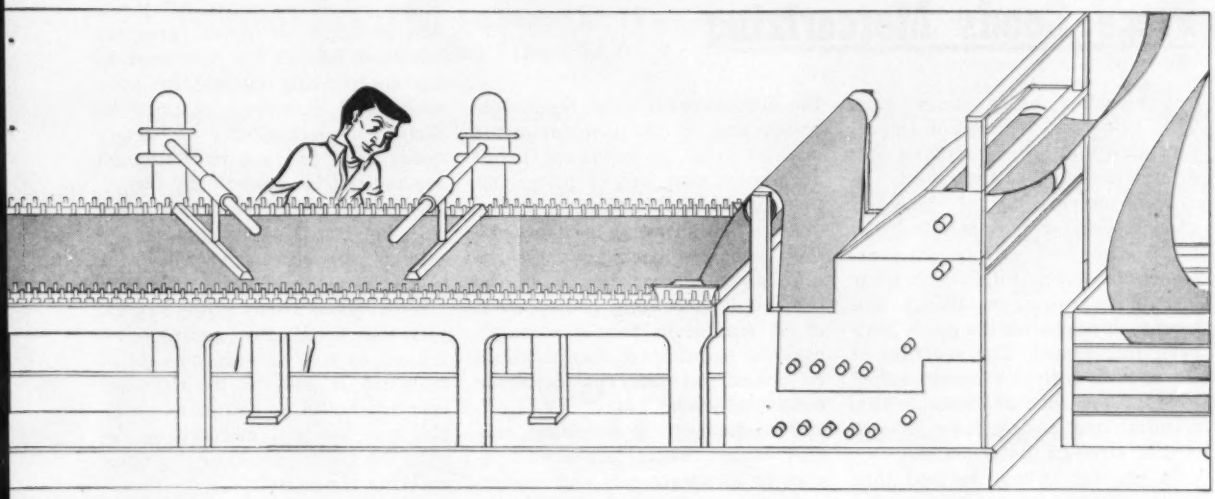
While the improved luster obtained by mercerizing is due mainly to an actual chemical and physical change within the fiber itself, a certain amount of the luster and particularly the smoothness of the fabric are due to the fact that many of the surface fibers actually shrink and tend to disappear during the mercerizing action. This adds a definite amount of sheerness, cleanliness, and transparency to the mercerized fabric.

The mercerizing process, whether done under tension or not, increases the chemical reactivity of the cotton. This makes the fibers more receptive to the absorption of dyestuffs and various chemical finishes. We find today that in some special cases cotton fabrics are mercerized mainly to obtain improved dye affinity and chemical reactivity. For certain fabrics the mercerizing process may be so modified as to increase only the dye affinity or chemical reactivity of the cotton without changing too much the general appearance of the fabric.

Careful control of the mercerizing process will furnish a definite amount of stabilization in the final fabric. In many cases the stabilization effect is considered almost as important as high luster. Improved stabilization results in better yields after shrink proofing, and in certain cases mercerization is almost a must in order to obtain proper stabilization.

To summarize, we may say that mercerizing is carried on today for the following purposes with decreasing order of their importance:

Luster
Smoothness of fabric
Improved dye affinity
Improved stabilization
Improved tensile strength
Improved chemical reactivity



Mercerizing

By Sidney M. Edelstein
Technical Director
Dexter Chemical Corp.

EXCLUSIVE

II. In the Grey or After Kiering and Bleaching?

There has been much discussion concerning this question. There is no single answer which fits all conditions. Cotton goods may be mercerized in many different states. Fabrics may be mercerized in the grey without any treatment whatsoever, or after a preliminary desizing, after kiering, or after kiering and bleaching.

The choice as to the pre-treatment or lack of pre-treatment of the goods before mercerizing will depend on the type of goods, the particular plant setup, and finally on the requirements of the final mercerized fabric.

Theoretically, mercerizing of grey goods should be the easiest operation for most plants because no extra drying or special pre-treatment is involved, and the goods can emerge from the end of the mercerizer containing enough caustic for kiering operations. However, large quantities of impurities are brought into the caustic and these impurities may interfere with mercerizing. Goods mercerized in the grey under the best conditions however show very satisfactory luster, improved strength, and other desirable properties. Mercerizing in the grey does require the addition of special penetrants to the mercerizing caustic for satisfactory results.

The mercerizing of grey goods which have been desized gives particularly satisfactory results because the caustic does not become contaminated with starch, and the natural pectins from the cotton are usually not great enough to cause any real trouble. If the goods are not dried after desizing then there is the added problem of caustic dilution and in certain cases poor mercerization. If the goods are dried after desizing preliminary to mercerizing then there is the extra cost for the drying. Goods which have been mercerized in the grey and which have been desized before mercerizing are of course in particularly satisfactory condition for kiering directly after the mercerizing.

Goods which have been completely kiered react in about the same manner as goods which have been desized but not kiered. There is the same problem of the extra cost for drying, or poor mercerization if mercerized wet. If the goods are dried after kiering, then of course they are in an absorbent condition for reacting with the caustic of the mercerizer and a penetrant is usually not needed.

As far as luster, strength, dye affinity, and chemical activity are concerned, there is not much to choose between mercerizing in the grey, in the grey plus desize, or on kiered goods. The choice of any of these three methods will depend strictly on the convenience of routing within the mill and on caustic recovery setups, as well as on availability of drying equipment.

Goods may be completely kiered and bleached before mercerizing and in fact, many mills operate on this type of setup. In general, it has been found that goods mercerized after kiering and bleaching show slightly better luster and a smoother appearance than goods which

are bleached after mercerizing. This, of course, is based on the assumption that all mercerizing conditions are kept at their best.

The mercerizing of bleached goods does offer one possible drawback. The bad effects of overbleaching which might not show up under normal conditions will tend to appear after the goods have been mercerized. The reaction of the caustic with any overbleached cellulose will dissolve some of this cellulose and there will be definite tensile strength deterioration.

In general, it may be said that the differences in final results between any of the pre-treatments are not great. If maximum luster and smoothness are of prime importance, and it makes no difference as far as routing is concerned, then complete kiering and bleaching before mercerizing would be preferred. If routing is important or if maximum tensile strength must be maintained, then it would be considered safer to mercerize before bleaching.

Preliminary to mercerizing, certain important factors are common to all treatments and certain points should be noted. All goods whether wet or dried, grey or bleached, should be delivered to the mercerizing caustic in open width and as smooth as possible. Wrinkles, particularly in heavy goods, tend to leave marks which are noticed in subsequent dyeing. The goods should enter the mercerizing caustic with at least a small amount of tension, in order to preserve fabric evenness.

If wet goods are to be mercerized, then they should first go through a mangle to give an even amount of moisture. In general, the moisture content should be as low as possible, and for best mercerizing results the goods should be dry upon entering the caustic.

III. Which Unit for Caustic Impregnation?

The units used for impregnating the goods with the mercerizing caustic vary from simple padders to boxes as long as 20 feet containing numerous rollers, squeeze rolls, and skying arrangements. Which is right?

Let us look at the reaction that takes place when the cotton is treated with caustic soda. When cotton in an absorbent condition and thoroughly dry is treated with strong caustic soda, the sodium hydroxide is drawn up into each fiber and then the fiber is swollen by the water which is drawn along with the sodium hydroxide. At the same time the cotton fiber is put into a plastic state so that it can be deformed.

The most important thing to note is that the mercerizing action is not instantaneous. There is a time factor which, while small, must nevertheless be recognized. The mere squeezing of liquid caustic into the fiber is not enough. The caustic soda must actually react with the cellulose of the cotton. Squeezing or pressure will not hasten this reaction provided the fiber is absorbent. If the goods are not in a dry state on passing into the caustic then the time factor is even greater, because the water held within the fiber must be partially displaced by the caustic before there can be an actual mercerizing action.

Obviously, there is a great deal of leeway possible in the choice of impregnating units. A box need be only long enough to completely saturate the goods with the caustic for once the goods are saturated thoroughly with the caustic, the mercerizing action can take place without the goods being submerged in the liquor. If the goods are in a completely absorbent state, and if there is enough time on the frame before washing begins, then all that is necessary is a simple padding operation with a single dip into the caustic. If the goods, however, contain water then the caustic will be diluted by the water in such a single dip operation and we will actually be mercerizing with ½ or ⅓ of the desired caustic strength. Therefore, if the goods being mercerized enter the caustic box wet then the impregnation unit must be long enough, or there must be enough dips, so that by the time the goods leave the last caustic box they will be completely saturated with caustic equivalent to the strength of that being maintained in the caustic bath. In other words, if we are mercerizing wet goods with 50°Tw caustic and give the goods only a short dip in this caustic, we will then be mercerizing with only about 25°Tw caustic if the goods contain 100 per cent moisture.

Normally, for mercerizing wet goods, the impregnating box should be so arranged that the goods have several passages through the caustic and the strong caustic should be fed in at the end of the box opposite to where the goods enter.

An exact time of contact between the cotton and the caustic cannot be given absolutely. Normally, a time of contact between the goods and the caustic of 30 seconds will be satisfactory. Longer times of contact, or longer boxes, will cause no harm but simply mean more equipment to maintain and a bigger problem on breakdowns.

Recently there has been a tendency toward the use of very heavy pad rolls in the middle part of the caustic impregnating units, and in some cases three-roll padders with very high squeezes have been used. In most cases these heavy rolls or high pressures are of no value. If the goods are unabsorbent, then more efficient results can be obtained by the use of a proper penetrant in the caustic. If the goods are thoroughly absorbent, then no amount of squeezing will hasten the reaction of the caustic with the cellulose of the cotton. In general, it may be said that only light squeezes during the passage through the mercerizing caustic are necessary under normal conditions.

IV. What About the Squeeze on the Goods Leaving the Caustic?

The amount of squeeze on the goods as they leave the caustic impregnating unit is of great importance. In fact, this writer has found that lack of understanding of this factor is one of the most important causes for not obtaining the full advantage of the mercerizing process.

Generally, most mills have thought that it is desirable to have the goods leave the mercerizing caustic containing as little caustic as possible. This has often required the installation of heavy squeeze rolls which could be adjusted to reduce the caustic content in the goods to as low as 60 per cent in certain cases. This tendency toward high squeeze pressures was thought to add efficiencies to the mercerizing operation both in the savings of caustic and also in improved efficiencies in the subsequent washing of the goods on the tenter frame. For the most part this has been fallacious reasoning. While low caustic content does mean less caustic consumption and easier washing, it also means in many cases incomplete mercerization, incomplete stabilization, inferior luster or all three.

The writer has visited many mills where the goods have come out of the caustic with so little caustic left in the goods that subsequent framing for maximum luster and stabilization could not be obtained. Time and time again the writer has been told that the goods could not be pulled out to the desired width without splitting. In every case it has been found that when such a condition existed, the goods had been squeezed to such a point on leaving the caustic that they were practically dry. While the cotton fibers are in a plastic state after the caustic treatment, a certain amount of liquid caustic must surround each fiber in order to provide proper lubrication so that the fibers can be deformed. Also, a certain amount of the actual mercerizing action takes place on the frame before washing. If the caustic content within the fibers is too low then this full mercerization action cannot take place.

While no exact amounts for the desired caustic content in the goods on leaving the caustic box can be given, in general this content should be at least 100 per cent on the weight of the goods. For many operations and for certain light-weight fabrics where maximum luster is desired, the goods should emerge from the caustic bath actually wet with the caustic solution. By trial and error the adjustment of the squeeze on the goods leaving the caustic can be made in conjunction with the framing operation so that maximum mercerizing results are obtained. This must be worked out for a range of goods in each plant.

V. Most Mercerizers Use Caustic At About 50°Tw. Is This the Best Range?

Most mercerizing of piece goods is carried out in a caustic concentration of 48° to 54°Tw. A certain amount of mercerizing is done in a caustic range of 30° to 35°Tw where improved dye affinity is the only important attribute desired. We have met with one plant using 42°Tw and one plant running at 46°Tw. We have not found any good practical reasons for using the intermediate caustic range of 42° to 46°Tw.

Our experience has shown that the 48° to 54° range is extremely satisfactory for most work. Caustic stronger than 54°Tw does not add any improvement as far as luster is concerned or even as far as most other properties are concerned. A caustic strength below 48° actually gives poor luster and appearance in the final mercerized fabric. The 48° to 54° range is particularly good because variations of temperature or the amount of impurities in the caustic in this range do not noticeably affect the final results of the mercerizing unless these changes are extreme.

The writer has generally recommended that plants set up the range of 50° to 52°Tw caustic as their standard. This gives the most satisfactory range from the standpoint of control and also gives completely satisfactory all-around results. If this standard is adopted by a plant, then if by accident the Twaddell is allowed to go a bit above or a bit below the standard range, no variations will be found in the final results. Also, the normal variations in temperature encountered from changes in the weather will not noticeably affect the mercerizing action of caustics in this range.

It must also be pointed out that most mercerizing penetrants are made to show their greatest efficiency in the range of 50° to 52°Tw. Concentrations higher than this suggested range will often cause precipitation of mercerizing penetrants, and concentrations lower will reduce the wetting action of the penetrants.

VI. What About Pectins, Starch, Carbonates, and Other Impurities in the Caustic?

In general, it may be stated that the impurities in the caustic are rarely the cause of poor mercerizing results.

Usually, the impurities found in mercerizing caustics will consist of sodium carbonate, pectic matter, starches and sizing material, salt, and small amounts of inorganic compounds which are derived from the cotton. In addition, there will always be a definite amount of fiber and dirt mechanically suspended in the caustic.

The presence of sodium carbonate in itself does not harm the

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mercerizing action of the caustic soda. Sodium carbonate simply acts as a diluent. If the sodium carbonate content is high then misleading results may be obtained on measuring the concentration of the caustic, for the sodium carbonate will add to the specific gravity in about the same manner as an equal weight of sodium hydroxide.

Normally, the amount of carbonate present in mercerizing caustics will range from 0.5 to 3 per cent. Higher amounts will be found depending on whether or not the caustic is made up from recovered wash waters and also on the amount of skying in the caustic saturator, as well as on the carbon dioxide content of the air in the mercerizing room. Normally, it is well to keep the sodium carbonate content below 6 per cent. If the carbonate content does become too high then it often may be reduced or controlled by using a shorter bath in the caustic box or by reducing skying.

The presence of pectic matter from the cotton or the presence of dissolved starches do not decrease in themselves the mercerizing power of the caustic. These materials tend to precipitate from solution and do increase greatly the viscosity of the caustic solution. This increased viscosity will often reduce the penetration rate of the caustic into the cotton fibers. Also, the precipitated pectic or other organic matter may occasionally accumulate on the fabric and thus cause resist spots. It is to be remembered that the presence of these organic materials will also give misleading figures in measuring the caustic content with hydrometers. The organic impurities derived from the cotton itself normally never reach a high enough quantity to actually affect the mercerizing powers of the caustic bath, and from the practical standpoint they need not be considered.

Sodium chloride may be encountered in certain caustic baths, usually associated with impure commercial caustic soda. An amount of sodium chloride higher than 1 per cent will definitely reduce the mercerizing action of the caustic and commercial caustics should be used containing a low amount of sodium chloride.

The insoluble materials such as lint and dirt which are mechanically dispersed through the mercerizing caustic do not materially affect the action of the caustic. Large accumulations of this type of material however may filter out on the goods from time to time, causing spots or various imperfections. In general, it is considered wise to keep the baths reasonably clean of suspended matter.

In summation, it may be said that in most cases too much emphasis has been put on the factor of caustic impurities. In fact, money is often wasted in cleaning up caustics without any noticeable improvement in mercerizing results. The limits of variation for all of the impurities are wide and it does take a considerable amount of these impurities, with the exception of sodium chloride, to reduce the efficiency of the mercerizing process. The most important point to be noted is the misleading results which the presence of high amounts of impurities give to specific gravity readings.

VII. Must We Cool the Caustic?

The effect of caustic temperature on mercerizing results has been greatly misunderstood for many years. Many mills have placed an importance on temperature control of the caustic which is unwarranted either from the cost or quality standpoint. In fact, many mercerizing plants actually had cooling systems for their mercerizing caustic and only in recent years have most of these cooling systems been discarded.

The fact is that if a plant uses a caustic in the 48° to 54°Tw range, then a wide variation in temperature can occur without causing any noticeable variation in the final mercerization obtained. It has been determined, both practically and by a considerable amount of research under controlled conditions, that with the caustic in a range of 48° to 54°Tw, a variation in temperature from 70 F to 100 F will not cause any difference in the final results. If the temperature of a caustic bath of this strength however begins to go over 110 F then a noticeable decrease in luster in the final mercerized goods can be noted. Reducing the caustic temperature below 70 F in this caustic range does not show any noticeable improvements and the cost of cooling large quantities of caustic is not worth the trouble.

In the case of weaker caustics, however, the effect of temperature is much more noticeable. If one uses a caustic of 30°Tw then a few degrees change in temperature will make a noticeable difference in the appearance of the fabric and also in the final dye affinity. Caustic concentrations of 42°Tw or 46°Tw are naturally intermediate between the low and the high caustic ranges and the allowable variation in temperature would also be intermediate.

Perhaps the false idea of the importance of temperature in mercerizing was due to the fact that in Mercer's original patent he indicated that with weaker caustic sodas, satisfactory mercerizing could be obtained by cooling the caustic down. In most plants today the caustic bath can be so arranged that the temperature of the caustic does not go too high. In certain special cases where goods are mercerized wet in a short caustic bath, the temperature might rise above 100°. Drying the goods or using a longer bath or allowing the makeup caustic to cool thoroughly before use will generally take care of this problem.

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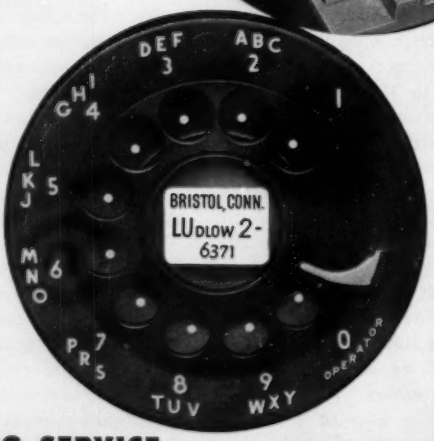

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VIII. Do We Need a Mercerizing Penetrant?

For the most part mercerizing penetrants are used where goods are mercerized in the grey without kiering. When goods are mercerized in a nonabsorbent condition, mercerizing penetrants are necessary to obtain satisfactory results and this is particularly important if heavy goods are being mercerized. While a certain amount of mercerizing in the grey on light weight fabrics has been carried out without the use of mercerizing penetrants, the addition of satisfactory penetrants will always insure better results and an easier control of the mercerizing operation.

Mercerizing assistants are actually used for three purposes. While, as has been pointed out, the most important use is to insure that the caustic soda in the mercerizing bath will wet the fabric, there are other functions which good assistants serve. Certain assistants have been developed which not only cause rapid wetting of the goods but in many cases actually speed up the reaction rate of the caustic soda with the cellulose of the cotton. This property has become particularly important with the increased speeds of operation in use today. In many cases where it would be uneconomical or impractical to increase the size of the caustic bath or the length of the frame, the addition of one of these "catalytic" assistants will enable speed of mercerizing to be doubled.

The third important property of most mercerizing assistants is that their presence in the caustic actually helps to remove more readily the caustic from the goods during the washing process. This last property in many cases has enabled plants to improve their mercerizing where poor washing was the cause of inferior results.

In summing up it may be said that a mercerizing penetrant should be used whenever the goods are mercerized in the grey or in an unabsorbent condition. Where absorbent goods are mercerized at high speeds or where efficient washing cannot be obtained, the addition of a proper mercerizing assistant will often give improved results as far as luster and other properties of the mercerized fabrics are concerned.

IX. Which Mercerizing Penetrant?

Chemically, mercerizing penetrants and assistants are of two basic types although there are hundreds of patents on mixtures of all types. One main group of penetrants is based on cresylic acid and the other group is based on noncresylic high alcohols. Our experience has indicated that for most work, the penetrants based on cresylic acid are more satisfactory for all-around use than those based on the complex alcohols. We have found that only with cresylic-base products can we obtain penetrants which will actually insure maximum reaction between the caustic and the cellulose.

The one disadvantage of cresylic type products is of course the fact that their odor and irritating properties when in contact with the skin are occasionally objectionable. The only real advantage of the noncresylic type penetrants is the fact that they are nontoxic and generally do not have an unpleasant odor.

Mercerizing penetrants are available which have a fair wetting power over a wide range of caustic concentration or which have extremely high wetting powers over a narrower range of caustic concentration. For most efficient and economical results it is desirable to have a penetrant which is made for the specific narrow range of caustic used by the particular plant. Since most concerns use the caustic strength in the 48° to 54°Tw range, it will be found that most penetrants on the market are made for this range. For other caustic concentrations it is best to request a specific penetrant for the particular range from the manufacturer.

In addition to high wetting speeds there are certain other desirable characteristics of a good penetrant. First, the penetrant should be reasonably soluble in caustic and should not separate out on standing. The penetrant should also maintain its wetting power when dissolved in the caustic over a considerable length of time. The penetrant should not be absorbed by the cotton as it passes through the caustic, and not cause foaming in the caustic or in the washing operation. When the wash waters are recovered and evaporated, it is particularly important that the mercerizing penetrant used does not foam in the caustic evaporators.

In general, mercerizing penetrants are used at approximately 1 per cent concentration, based on the volume of the mercerizing caustic. While quantities less than this may be used with many of the better penetrants, it is best to use a 1 per cent concentration not only because of the insurance of maximum wetting but also because of the fact that an actual speeding up of the reaction between the caustic and the cellulose can only be obtained when the penetrant is used in these larger amounts.

X. Do We Need Close Control of the Framing and Washing on the Tenter?

The operations carried out on the frame following caustic impregnation of the goods are undoubtedly the most crucial in the whole mercerizing process. No matter how well the goods have

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been prepared or how completely the caustic has penetrated and reacted with the goods, the final mercerizing results will not be satisfactory unless the goods are framed properly and washed evenly and thoroughly on the tenter.

Perhaps more inferior mercerizing results are due to lack of consideration of the framing and washing operation than to any other cause. When the goods have been properly treated with the mercerizing caustic they reach the frame in a semi-plastic state. Unless the goods are properly set by framing to the right width, and unless the goods are properly washed before coming off the frame, then poor luster, bad shrinkage control or even streaky dyeing may result.

XI. How Should the Goods Be Framed on the Tenter?

Theoretically, the framing operation simply requires that the goods be brought out to the desired width as soon as possible before washing begins. In practice a certain amount of compromise is made so that the goods reach the desired width gradually. Very often it is thought that bringing the goods out to width too quickly on the frame will cause breaks or tears. This is often true when the goods leave the caustic bath too dry. If the goods leave the caustic bath containing a sufficient amount of caustic, or in other words if a light squeeze is used on the pad coming out of the caustic, then the goods will be lubricated and they can be brought out to width quickly. Exact figures cannot be given as to the length of time or how soon the goods should be brought out to width as this is related to the length of the frame and to the subsequent washing. Compromises may have to be made because of the insufficient washing capacity which we will discuss later.

The width of the goods on the frame is also a moot point. In general, for most operations where maximum luster and maximum shrinkage control are desired, the goods should be brought out to their grey width and even an inch over grey wherever possible. If the goods are framed below grey width, then the luster will be definitely reduced and the shrinkage control and stabilization will also suffer.

In many plants there is a fear of bringing out the goods to the grey width. In practically all cases this fear has been due to the fact that where trials have been made, the goods were always too dry and therefore tears or breaks appeared when the goods were brought out to width. This, of course, can always be compensated for by leaving a larger amount of caustic in the goods after leaving the caustic box.

Another factor which sometimes prevents mills from bringing out their goods to full width on the frame is that the increased tension on the clips and on the machine causes a binding action. This binding action can often be reduced by having a slow drip of caustic on the clips at the end of the frame. This caustic will act as a lubricant and prevent binding.

Only in rare cases is it desirable or necessary to put extra tension along the warp. In general, the tenter should move at the same speed as the caustic pad so that the goods are neither stretched nor allowed to contract along the warp. In certain cases where extreme luster along the warp is desired, the frame may be run at a speed slightly greater than the speed of the caustic box, thus setting up an extra stretch along the warp. Normally, the maximum difference in speed between the frame and pad is 5 per cent.

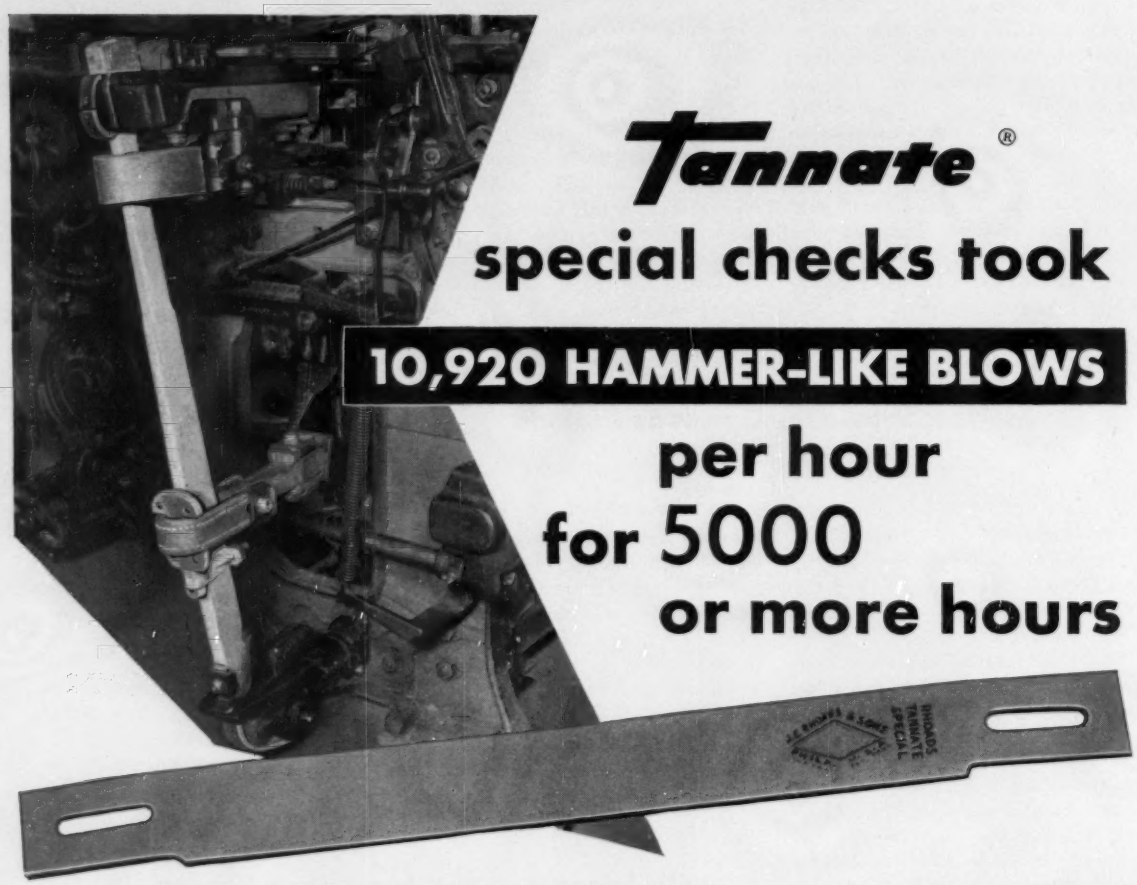
XII. What Are the Important Factors in Washing the Goods on the Tenter?

Once the goods have been brought out to proper width then the caustic must be removed while the goods are still held out to this width in order to obtain maximum results. After the goods have left the tenter frame, no amount of washing or stretching will affect the true mercerization or the set within the fabric.

It has been shown that at room temperature cotton will shrink in the presence of 5°Tw caustic. This means that the caustic within each cotton fiber should be reduced to below 5°Tw before the goods come off the frame. If a larger quantity of caustic is present within the fibers, then when the goods come off the frame there will be a certain amount of shrinkage and a certain amount of the luster and stabilization will be lost. An error is often made by assuming that the wash water coming off the goods at the end of the frame during washing indicates the actual caustic within the fibers. This is a fallacy. This wash water may show only a 5 per cent caustic content whereas the caustic within the goods may be as high as 10 or 15 per cent.

Some measure of the washing efficiency on the tenter can be obtained by measuring the width of the goods as they continually come off the end of the frame. If maximum washing is obtained then there will be only a slight loss in width as the goods come off the tenter clips.

One of the biggest causes of unsatisfactory washing of the goods on the tenter is the use of the counter current system, whereby the goods are washed continuously with the same wash waters. In many plants doing poor washing the system has been so set up that



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10,920 HAMMER-LIKE BLOWS per hour for 5000 or more hours

...gave nearly double the life of other check straps used

One of our customers operates 400 Draper Model X2 40" looms, 182 p.p.m., and has been using heavy weight Tannate Special Bi-Cut Check Straps 2" x 23". They operate 120 hours per week and reports say Tannate averages 5,000 to 5,500 loom hours; just about double the life received from other make check straps previously used on these looms and at this speed.

The exclusive Tannate special tannage and curry is the principal reason these straps are able to take such a beating and yet hold up so well.

In addition, Rhoads patented Bi-Cut feature permits the strap to conform to the angle of the picker stick and to drop clear of the binder bolts and nuts that frequently scar ordinary straps. More leather hugs the stick to cushion its flight and box the shuttle perfectly.

Tannate Special Checks are available in a wide variety of sizes, thicknesses and degrees of firmness, to suit your particular requirements.

So no matter what kind of straps you are using, try Tannate Special Checks and see for yourself how Tannate can very probably lower your strap costs.

what is Tannate® Special Leather?

Tannate special leather is a Rhoads exclusive. It's custom tanned to build into it all the characteristics so necessary for efficient loom operation. For specifications, write J. E. Rhoads and Sons, 35 North Sixth Street, Philadelphia 6, Pa.

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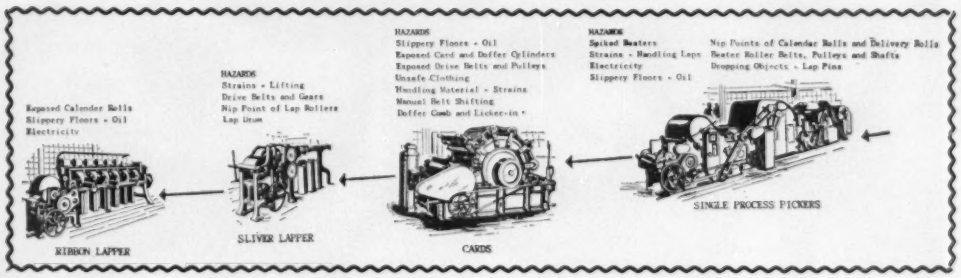
ATLANTA • PHILADELPHIA • NEW YORK • CHICAGO



Use Process Flow Charts to Prevent Accidents

Process flow charts are a practical aid to detection and correction of safety hazards. states William C. Creel, safety director of the North Carolina Department of Labor in an article in the December, 1954, issue of "Safety News Letter—Textile Section," published by the National Safety Council.

Mr. Creel speaks from experience, because he uses them in analyzing the problem with which he is faced—how to prevent more than 97,000 industrial injuries in North Carolina each year. The illustration above is a portion of a chart prepared by his department for use in the cotton yarn mills in his state. These same principles can be utilized by personnel in any textile mill for preparing his own chart covering operations in his particular plant.

Included on the chart is each process or operation from the point materials are received, through the various steps, to the final disposal and shipping of the finished product. In each of these processes specific possible hazards are shown as indicated by a plant study of injury reports.

The use of the process flow chart in accident prevention includes three steps, according to Mr. Creel:

(1) Detailed study of possible hazards of each process;

(2) Inspection or investigation of each process to determine whether or not such hazards exist;

(3) Elimination of such hazards as may be disclosed.

"By coupling job safety analysis with the process flow chart, practical safe work methods may be developed," Mr. Creel said. "The job safety analysis should disclose the hazards of the motions and actions of the worker and of the machines or equipment involved. Through the elimination of these hazards, safe working methods and conditions may be developed. By following these steps in the plant, an effective safety program can be developed."

only a small amount of fresh water is entered at the end of the frame close to the point where the goods leave the tenter. The goods are thus washed mainly with caustic, and the short time of contact with fresh water at the end of the frame is not enough to reduce the caustic content to the desired level. The theory of this type of washing is sound from the chemical standpoint but completely unsound from the textile or mercerizing standpoint.

The counter current system does use a minimum amount of water and a strong wash water can be made available for use in other processes or for caustic recovery. In most cases, however, it would be better to sacrifice the strength of the caustic liquors in order to obtain good mercerizing results. Actually, in many cases the same results could be obtained by using a weak caustic for mercerizing instead of a strong caustic which is not removed properly from the goods.

For best mercerizing results where caustic recovery is not important, it would be desirable to wash the goods with a number of sprays containing no caustic but hot clean water. None of the wash waters should be recirculated over the goods. The wash waters should be as high as 180 F if possible, for best results. This is true whether the counter current system or the fresh water system is used. Temperatures above 180 F will sometimes cause slight oxidation of the cotton, and temperatures much lower than 180 F are much less efficient in removing the caustic.

Compromises will always have to be made to fit with the practical conditions in the plant as far as washing is concerned. Such conditions as the amount of water available, the amount of steam, and other factors may govern the amount of hot water washes available and also the temperatures at which these washes may be run. Where compromises must be made because of caustic recovery or caustic cost, and where some counter current system is necessary to obtain a reasonable supply of caustic wash waters of good strength, then improved results can always be obtained by putting in additional washes which are run as hot as possible at the end of the frame. It has been the writer's experience that in many cases seemingly minor changes in the washing setup on the tenter can make greatly improved mercerizing results.

In conclusion, we realize that we have not covered all problems. However, use of the information outlined above will help to produce good mercerizing under practically any set of conditions.

15 DENIER NYLON yarn is transferred from cardboard boxes to the special wood containers. Operative removes wrappers from pirns before placing on pins. If unused yarn were put back into cardboard boxes (right), it would be jostled around from time to time and sustain damage

Stop spoiling yarn!

TRUCK between creel columns makes creeling easier and with much less yarn handling. Now the yarn does not have to be unwrapped while creeling.

Staff Prepared

EXCLUSIVE

15 DENIER nylon yarn for tricot knitting is easily and quickly handled without damage when mounted on wood pins in special wood boxes which were designed and made at Stylewise Mills, Inc. Each special wood box holds a full case of yarn on pirns (all 15 denier nylon is received on pirns in this mill).

The nylon yarn is transferred from cardboard boxes to the special wood containers. Before the yarn is placed in the wood containers (see illustrations), the wrapper is removed from each pirn. The pirns of nylon are left in the wood boxes for conditioning at room humidity and temperature for a minimum of 4-5 hours; this modern tricot mill is completely air conditioned.

The wood boxes are placed on a small portable truck equipped with three casters. These boxes are used only for the 15 denier monofilament nylon yarn (other deniers

Knitters to Invade Atlantic City Week of April 25

Production and management personnel from knitting mills making all types of goods will gather in Atlantic City, N. J., during the week of April 25 to attend the Knitting Arts Exhibition which is sponsored jointly by the National Association of Hosiery Manufacturers, the National Knitted Outerwear Association, and the Underwear Institute.

More than 200 suppliers of machinery, equipment, yarn, and other supplies and services to the knit goods manufacturing industries have contracted for space in the huge Convention Hall of the Atlantic City Auditorium; and their representatives will be on hand to show and tell about the latest developments.

For complete information about the Exhibition, including a list of the exhibitors, floor plan of the exhibition hall, what is to be displayed, and the names of the exhibitors' representatives who will attend, see the April issue of TEXTILE INDUSTRIES which will be placed in the mails the last week of this month so that readers can have the information at least three weeks before the show.

Also scheduled for Atlantic City during the week of April 25 are the Hosiery Industry Conference and annual meetings of two of the associations sponsoring the knitting show. For dates and locations, see "Future Events" on page 79.

Those who are planning to attend and have not already done so are reminded to make reservations immediately with the hotels of their choice.

The boardwalk in Atlantic City. Ocean to left, hotels to right, Auditorium straight ahead.

Pension Plans May Need To Be Revamped

A recent informal survey of nationally-known companies made by Johnson & Higgins, international insurance brokers, revealed that over 70 per cent of the companies planned no changes in their pension plans to take into account the 1954 Social Security amendments.

Here are some of the questions J&H urges management to consider before deciding whether to take action and what action to take:

1. Will a company's pension plan plus Social Security provide higher or lower benefits than is provided by other companies in a given field or labor market?

2. Will higher-paid employees now receive less pension benefits proportionately than lower-paid employees?

3. What effect will increased Social Security benefits have on future pension negotiations?

4. Will the cost of a pension plan coupled with increasing Social Security taxes prove unduly burdensome in the future?

5. If increased Social Security makes possible cost savings, should these savings be used to provide other employee benefits?

6. Will failure to amend a pension plan now make it difficult to amend it for future Social Security increases?

are also used in this mill). In changing the creel occasionally (as most mills do) from one denier to another, the yarn remaining on the pirns in the creel is returned to the wood boxes to protect it until there is occasion to exhaust each pirn. If this unused yarn were put back into the cardboard boxes, it would be jostled around from time to time and come into contact with the sides of the box, thereby sustaining damage.

Now an operative rolls a truck between the columns of the creel and fills the creel in much less time and with much less yarn handling, thereby reducing the likelihood of the yarn being damaged or becoming soiled. Now the yarn does not have to be unwrapped while creeling. The operator formerly carried one arm load of pirns at a time from the cardboard box to the creel where she unwrapped the yarn and placed it in the creel, one pirn at a time. This presented a problem regarding disposal of the wrappings. The wrappings are now disposed as the pirns are transferred from the cardboard boxes to the wood boxes.

only

ECLIPSE BOBBIN HOLDERS

OFFER THESE

"BIG TEN" Features

1. Completely replaces wooden skewers.
2. Stainless steel ball bearings minimize friction, resulting in uniform quality of roving.
3. Permits less twist. Tests indicate yarn of more even texture.
4. Creel boards easily cleaned. Overhead suspension leaves open creels. Blowers more effective.
5. Better spinning of spun rayon.
6. Easier creeling; less physical effort and fewer motions required.
7. Improved brake attachment prevents over-run and backlash.
8. Now cadmium plated and stainless steel balls more rust resistant.
9. Time-tested product—holders in operation for over ten years.
10. Easy to install; practically no upkeep.

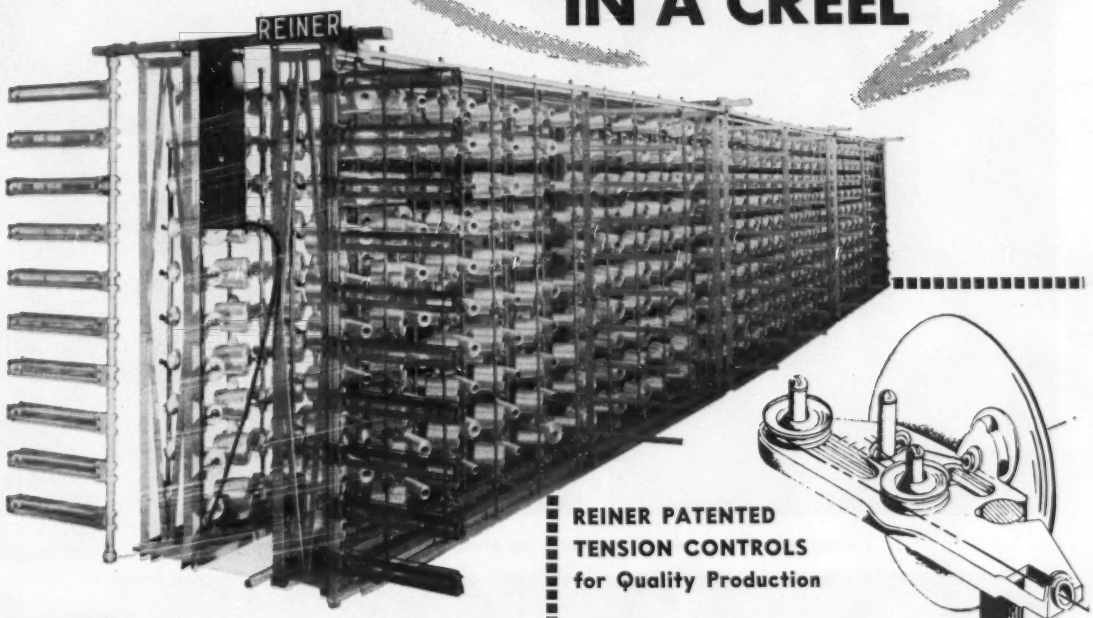
★ ★ ★

Textile men everywhere are concerned with efficiency and economy of operation, and that's just what these *exclusive* Eclipse features assure you! If you want to modernize your present plant equipment profitably, you can't go wrong with the finest—Eclipse Bobbin Holders. Write us for further details.

Export Sales: Bendix International Division, 205 East 42nd St., N. Y. 17, N. Y.

ECLIPSE MACHINE DIVISION of Bendix AVIATION CORPORATION
ELMIRA, NEW YORK

REINER Offers Everything You Want IN A CREEL



REINER CREELS—

the most modern in use—have many features. Time-tested and proved in mill operation, they provide for savings in labor—producing better warps at higher speeds. They are readily adaptable to pirns of all sizes and all types of cones or cores.

Reiner magazine or single type creels give unmatched performance for any space or functional requirement. Truck creels for quick doffing are also available.

Reiner offers a full line of warpers and beamers.
All Reiner equipment is readily adaptable for use with units of other make.

From Cone to Knitted Fabric—From Creels to Warpers—From Knitting Machines to Tenter Frames—You Can Depend On Reiners For Superb Workmanship, Low-Cost, Profitable, Efficient, Trouble-Free Production!

REINER PATENTED TENSION CONTROLS for Quality Production

REINER'S PATENTED TRIPLEX TENSION provides for an endless variety of settings of delicate yarns at top speeds. A metal guard protects against ballooning yarn—eliminates breaking or nicking. Four different weights of tension washers meet all possible requirements. All posts are movable and the slots calibrated for easy setting. Alsimag or porcelain eyelets—tension posts available in Alsimag or satin-finish hardened chrome.

Other tension arrangements for single or double posts for tension plus *loom type stop motion*, for crepe adaptor tensions, etc. *Also Mercury and mechanical stop motions* for any yarn or special requirement.

Write for complete details.

Also ask about the most recent addition to the complete Reiner line — the Reiner Warp Oiling Device.

See Reiner Machines in action at the KNITTING ARTS EXHIBITION, Booths Nos. 66 to 73 inclusive, April 25-29, 1955, Atlantic City, N. J.

ROBERT REINER INCORPORATED

10 MINUTES FROM TIMES SQUARE

Take Bus Nos. 61 or 67, from Platform No. 60, Port Authority Bus Terminal, 41st Street and 8th Avenue, New York City. Get off at Pleasant Avenue, Weehawken, New Jersey. From there turn left and walk through the underpass up to Gregory Avenue . . . TELEPHONE: UNION 7-0502, 0503, 0504, and 0505. From New York City call LONGACRE 4-6882.

FOUNDED IN 1903 — ***550-564 GREGORY AVENUE, WEEHAWKEN, NEW JERSEY***

KNITTER HINTS No. 40

EXCLUSIVE

Plastic guard for looping machine ⬅ protects points and looper's arms ➡

finish boosts f-f hosiery sales

Customers' reorders increased when this mill adopted the "Lanolized" process

Staff Prepared

EXCLUSIVE

IN AN infirm market, C. W. Anderson Hosiery Co., Inc., Clinton, S. C., sought a way to improve sales and to bolster the price of hosiery. Upon comparing hosiery finishes, it was found that on all gauges and deniers of stockings the regular finish used by the mill felt starchy; while an examination of a "Lanolized" stocking revealed a smooth, silky finish.

A sample lot of stockings was processed with the "Lanolized" treatment. This lot of 40-50 dozens was distributed in June, 1954, through sales channels as samples, and customer reaction was immediate. A typical customer comment was: "This is the kind of stocking we have wanted for a long time."

The "Lanolized" process was adopted on a full scale basis in this South Carolina hosiery plant in July, 1954.

Less Sales Resistance. Less sales resistance has been evident since the company marketed stockings with the new finish. More customer satisfaction has been reflected through increased re-order business from sales outlets.

Some of the helpful sales features of "Lanolized" stockings are as follows:

(1) A soft, silky, luxurious feel.

(2) Seams stay straighter than usual.

(3) The stockings are easier to put on.

(4) The stockings are more comfortable to wear.

(5) Stockings cling to the leg and fit better.

(6) The stitches or knitted interstices appear clear and cloudless, therefore have more eye appeal for the customer.

What Is "Lanolized"? This is a process for treating nylon stockings with lanolin. The name is applied to stockings that have been treated with a special combination of ingredients applied directly to the stockings in the dye tub and immediately after the dye bath.

License Arrangements Necessary. The finish may be applied only by licensed manufacturers of hosiery (no agents or finishers may be licensed for the process), and Lanolized, Inc., 350 Fifth Avenue, New York 1, N. Y., holds exclusive rights. Users of the finish, process, and trade mark are licensed on a royalty basis of 5 cents per dozen.

Scholler Bros., Inc., Philadelphia, Pa., are authorized manufacturers of the ingredients that go into the finish.

Conditions accompanying the license are as follows:

(1) Only first quality hosiery may be marked "Lanolized."

(2) The stockings must be priced for at least $7.50 per dozen.

The approximate cost of the application is twice the cost of the regular finish formerly used at C. W. Anderson Hosiery Co., Inc. This

SPECIAL INGREDIENTS for the process are applied directly in the dye tub immediately after dyeing.

Knitting

YOU FURNISH THE PRINT, WE'LL FURNISH THE PART

SYNTHANE REDRAW CAPS FOR NYLON SHIPPING PIRNS ARE SMOOTH, SNAG-FREE, PRACTICALLY INDESTRUCTIBLE

Synthane laminated plastic redraw caps are typical of many *Synthane* parts at work in the textile industry. Bobbins, pirns, headless package tubes, hosiery turning and examining forms, and sizing bobbins are often made of *Synthane*.

For redraw caps the advantages most desired of *Synthane* are snag-free smoothness for draw-off surfaces and long life. Other textile components, depending upon their functions, require light weight, hardness, temperature or dimensional stability, rigidity, crush-resistance, wear resistance, resistance to moisture or dyes. *Synthane* laminated plastics have all these properties in combination.

Synthane is also able, by reason of experience and equipment, to produce quality textile parts—usually at a reduction in time, money, and rejects.

Information on most of the *Synthane* laminated parts for the textile industry is available in a special textile folder. We'll be glad to send you a copy promptly. Use the coupon.

SYNTHANE CORPORATION, 9 River Road, Oaks, Pa.

Please send me a copy of the *Synthane* textile folder.

Name_____

Title_____

Company_____

Address_____

City_____ Zone____ State_____

SYNTHANE
LAMINATED PLASTICS

SYNTHANE CORPORATION • OAKS, PENNSYLVANIA

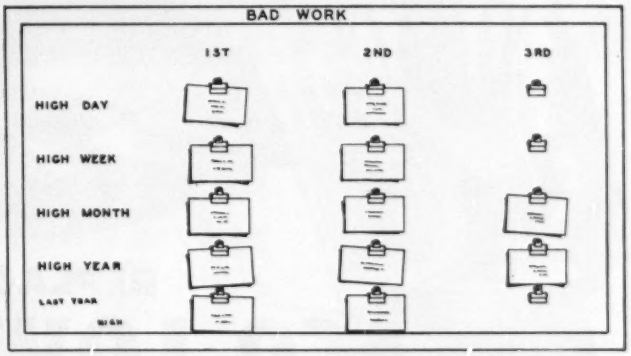
mill applies the finish to 51-gauge black, brown, or blue heel hose; 60-gauge hose with plain or dark seam; 60-gauge hose with fancy heels; 66-gauge, 12-denier with plain heel; and 66-gauge, 12-denier with black and outline heel, ranging in price from $7.50 to $8.25 per dozen.

Posting Offenders' Names Reduces Bad Knitting

Posting on a bulletin board the names of knitters who make the most bad work on each shift each day, week, month, and year has helped reduce the amount of bad work in one body knitting mill.

All of the operatives strive to keep their names off the bulletin board, thereby making the employees somewhat competitive among themselves.

Special allowances are made for difficult patterns and differences in machines.



Tips for Solving Roving Problems with Nylon on Worsted System

Some common roving difficulties that might be encountered when processing nylon on the worsted system are listed below with suggestions that may lead to overcoming them:

Roll Lapping

1. May be due to tackiness caused by high humidity.
2. May be due to static caused by low humidity.
3. May be due to an unsatisfactory (tacky) oil or finish which has been applied subsequent to the original finish on the nylon.
4. May be due to wool oil deposits on rolls. Where wools have been processed prior to nylon, the roving frame rolls should be scoured.

Cockling

1. Ratch may be too short.
2. Improper mixture of fiber lengths in a blend.
3. Long fibers present in staple. Increase ratch slightly in each case.

High Ends Down

1. Due to high tension combined with low twist. Use of either lower tension or higher twist is satisfactory provided the higher twist does not interfere with subsequent drafting.
2. Flyer choking due to fly accumulation or nicked and damaged flyers.
3. Ends down from singling due to weak roving.

Singling

1. In second roving or spinning, may be due to insufficient twist in roving.
2. Insufficient tension to break out second end after first end breaks down.

Uneven Roving

1. Evenness of roving affected by poor evenness in prior operations.
2. Poor drafting because of finish or oil applications.
3. Poor drafting due to unsatisfactory draft, tensions, and humidity.

Soiled Roving

1. Improper lubrication of equipment which can soil fibers either by carelessness or by over-lubrication.
2. Soot can be attracted to the roving. This can be corrected only by better air filtering.

Poor Package Formation

1. Tension may be too high causing a hard package, or too low causing a soft package.
2. Spindle and flyer may be misaligned.

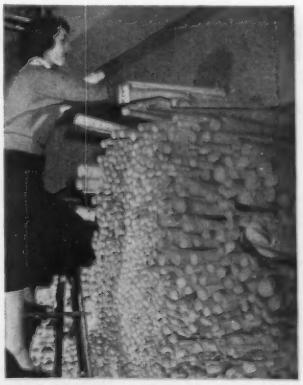
From bulletin published by Textile Fibers Dept., E. I. du Pont de Nemours & Co., Inc.

Automation Stockpile

The movement in industry toward greater automatic operation has put unrelenting pressure on engineering talent in the control manufacturing firms.

One firm, Minneapolis-Honeywell's Industrial division, which 95 years ago (in 1859, when it was Brown Instruments) turned out a single temperature - measuring device, today has to be prepared to produce some 140 million different variations of electronic, electric or mechanical recording and controlling instruments.

Here Marjorie Manning, of the division's engineering department, piles up some of the blueprints necessary to turn out these control devices. The drawings, if laid end-to-end, would stretch from Philadelphia to Atlantic City, or 60 miles.



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SACO-LOWELL PARTS

THEY'RE UNEQUALLED FOR
QUALITY PERFORMANCE DEPENDABILITY

these facts tell you why . . . .

- Materials metallurgically correct duplicating those used in original parts to assure long, trouble-free service.
- Machined to exact tolerances as called for in the original blueprint.
- Designed to meet the exacting specification of the original machinery.
- Guaranteed by Saco-Lowell to give smooth, trouble free operation.
- Efficient service by a special staff of sales engineers and technicians who handle replacement parts exclusively.
- Availability — two centralized parts depots with an "in stock" policy on thousands of parts. 75% of all orders are shipped within 48 hours.

there is no question about it . . . .

IT *PAYS* TO USE GENUINE SACO-LOWELL REPLACEMENT PARTS -
THEY'RE GUARANTEED

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60 BATTERYMARCH STREET, BOSTON 10, MASS.
Shops at BIDDEFORD and SACO, MAINE; and SANFORD, N. C.
SALES OFFICES: CHARLOTTE • GREENSBORO • GREENVILLE • ATLANTA

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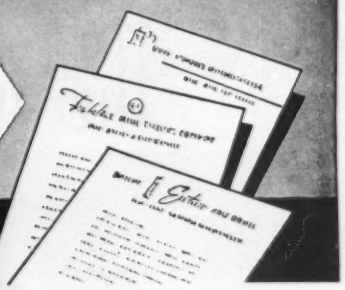


Write to the Editors!

Readers are invited to make use of this section for further discussion of published articles, or for discussion of problems arising in the plant. Names will not be used without permission. Payment is made for practical articles or for letters containing manufacturing information.

Address: Editor "Textile Industries," 806 Peachtree St., N. E., Atlanta, Ga.

More on False Twist in Roving

EDITOR TEXTILE INDUSTRIES:

We were greatly interested in your article on where to get rubber sleeves for roving false twist devices [TEXTILE INDUSTRIES for December, 1954, pp 180 and 183]. We have developed a product that we feel is much superior to the rubber sleeves, and have found that we can reduce our twist in some cases to 20 per cent less than is required without the false twist devices. In addition to reducing costs, we also find that we have less fly waste.

We are sending you four of these pretwisting devices, and request that you forward them to CONTRIBUTOR No. 8716. The larger of the devices goes on the back row of spindles, and the smaller goes on the front row (see accompanying illustration).

We are sure that if your contributor tries these in his mill he will be very much satisfied.

The maker of these devices is: Henry M. Bacon, Tillicum Rubber Co., Lacey, Washington.

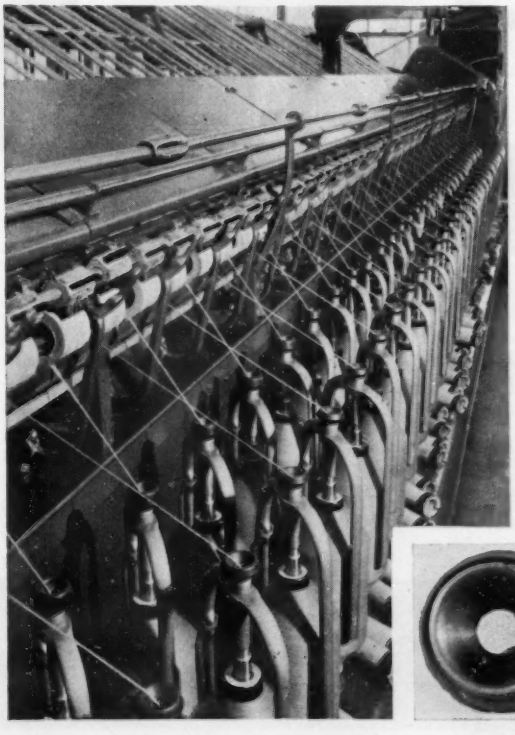
CONTRIBUTOR No. 8783

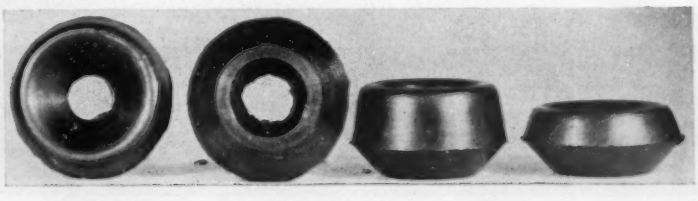
[Before forwarding the false twist devices to Contributor No. 8716, the editors sent them for evaluation to Dr. Hugh M. Brown of Clemson Textile School, who was the originator of the principle of inserting false twist at the roving frame. Dr. Brown's comments follow.]

EDITOR TEXTILE INDUSTRIES:

We were certainly glad to try the two sets of pretwisters which you forwarded to us. We find that they seem to work better than anything else we have yet tried.

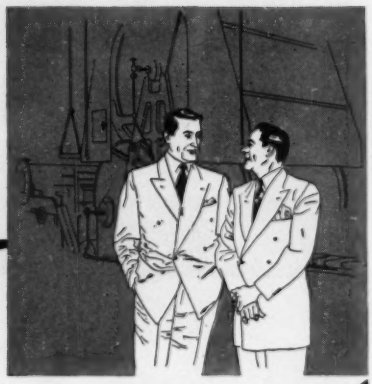
Incidentally, you might be interested to know that H. Windfeld-Hansen, of Windfeld - Hansens Bomuldsspinderi A/G, Vejle, Denmark, has had developed over





ROVING PRETWISTERS (below) come in two sizes; larger ones go on the back row of spindles, and smaller ones go on the front. Left: installation of false twist devices on a Whitin Model G10D Superdraft roving frame.

the weaver's friend



A KEESTAR PRODUCT

VICTOR Mill Starch

because it's always uniform

and backed by Keever service

Charles C. Switzer, Vice President
TEXTILE SALES DIVISION
1200 S. C. NATIONAL BANK BLDG.
GREENVILLE, SOUTH CAROLINA

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO

Processors of corn, wheat and blended starches for industry since 1898

there a gummed rubber top for roving flyers which he claims they are using throughout their mill with excellent success.

HUGH M. BROWN
School of Textiles
Clemson College

EDITOR TEXTILE INDUSTRIES:

Several months ago, after reading the article by Dean Hugh M. Brown on the Clemson pretwister theory [TEXTILE INDUSTRIES for May, 1954, pp 96-98], I contacted Dean Brown, and on his recommendation our mill purchased some rubber tubing from E. H. Sargent & Co. We had some difficulty at first in cutting the rubber tubing to the correct size, but we were able to solve the problem.

Because of the composition of the rubber tubing, it was virtually impossible to cut it to the correct length. To compensate for this, we took a piece of steel shafting and made an arbor with a shoulder cut on it; this arbor fits into each end of our roll buffing machine (see accompanying sketch). Although there are many different types of buffing machines, this same principle will apply in making an arbor to fit any of them.

We cut the rubber sleeves slightly in excess of ½" in length, fit the sleeve on the shoulder of the arbor, and then buff the sleeve to exactly ½" (the width of the shoulder).

It takes very little time to make these sleeves, and all are exactly the same size. Incidentally, we find that the sleeves should be glued on the flyers for best results. We use 3M weather stripping cement. Unless they are glued, the sleeves have a tendency to pop off from the flyers.

Application of the Clemson pretwister theory has made it possible for us to improve the quality of our roving and spinning, and ends down have been considerably reduced.

CONTRIBUTOR No. 8781

Having Trouble With Spots in Cotton Fabrics?

Samples of grey and bleached toweling sent in by a reader contained small groups of blue and rusty colored fiber bundles throughout the fabric. The editors of TEXTILE INDUSTRIES *submitted the samples to the research department of a well-known mill, which made the following analysis of the source of the contamination.*

EDITOR TEXTILE INDUSTRIES:

The type and amount of colored fiber in the grey and bleached toweling samples lead us to suggest that your reader should look very closely at all fabric roll and board coverings on his spinning frames, for we are of the opinion that frayed, loosened, or disintegrating covering may be the cause of the contamination shown in the samples. We base this on the frequency of contamination, and on microscopic examination, which showed the following:

1. Twist in all of the blue and rusty fiber bundles is different from the yarn twist.

2. Relatively hard and characteristically grainy fragments of solid matter are present in the blue fiber bundles. This is presumed to be adhesive matter such as is used to apply roll covering.

3. There are no single fibers scattered throughout lengths of yarn, which indicates that the blue fiber bundles have not been through the picker and card.

4. There is no bast fiber in the stained areas, which would be the case if the blue color were from the printed jute of the bale cover-

KINK CONTEST!

$100 will be awarded the winner

Send your entry now! This contest ends April 15, 1955

Every kink, short-cut, time-saver, or quality improvement suggestion entered in the contest will be paid for immediately upon acceptance. The $100 award will be made as soon as all entries are judged.

The contest rules are simple:

► All contributions must be postmarked not later than midnight, April 15, 1955.

► No limit to the number of entries an individual may submit in any one contest.

► All entries paid for upon acceptance — no waiting. Extra payment for photographs that are usable. Extra consideration is also given kinks accompanied by legible pencil sketches or drawings.

► Entries must not have been published previously.

Send your contest entry to:

Editor TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Georgia.

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Report from the Carolinas:

Mills Are Making a Better Size with Pearl Starch

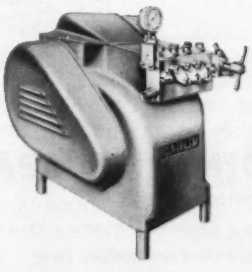
DOZENS of mill men tell us they make a better, more uniform size out of pearl starch simply by Gaulin-Homogenizing it. And with pearl starch costing $360.00 less than thin boiling starch per 60,000# car, the savings really mount up. But this is only the beginning.

By converting starch mechanically instead of thermally, a Gaulin Homogenizer makes even a pearl starch into a finer size . . . with a more stable and uniform viscosity.

It penetrates yarn lightly but evenly . . . bonds fibers together smoothly, firmly — without coating or matting and making them brittle. Out of 33 mills in North and South Carolina, 28 report more uniform sizing when it's Gaulin-Homogenized. 26 claim a decrease in hard size. 18 notice improved penetration in the yarn. Another 16 say the quality of their warp yarn is improved.

In addition, Gaulin-Homogenized Size lends itself to storing. Most mills say they can keep it up to 48 hours.

But how long does it take for a Gaulin to pay for itself? Most mills say from 6 to 18 months. If you're not already using one, why not give a Gaulin a test right in your own mill? We'll be glad to install one on a guaranteed performance basis. Whether you're making cotton, worsted or synthetics, just drop us a line asking for one of our sales engineers to call.



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What is the Leesona Double-Profit Service?

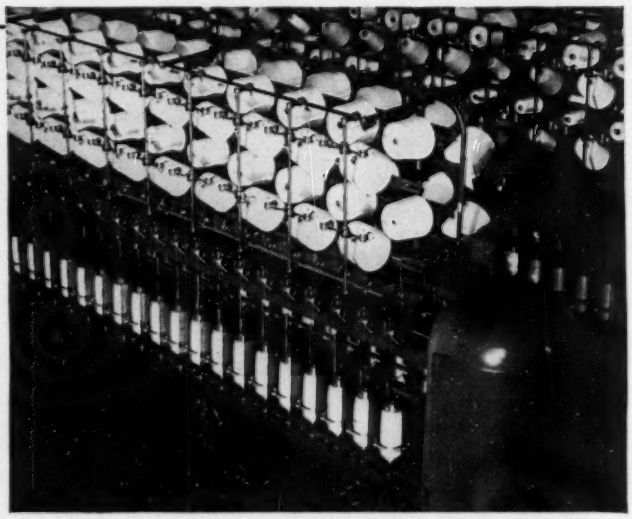
This is a two-way service to the textile industry, developed and offered exclusively by the Universal Winding Company. It is designed: (1) to aid textile mills in determining their twisting and winding machinery requirements; and (2) to aid mills in obtaining the machinery they need for modernization with minimum financial strain. It consists of two parts: Leesona Profit Factor Studies and Leesona Pay-As-You-Profit Plans.

What is a Leesona Profit Factor Study?

It is a detailed, confidential study of a mill's twisting and winding operations — including related operations — followed by a complete analysis with expert recommendations on how to effect savings and improve production. It is entirely without obligation on the part of mill management.

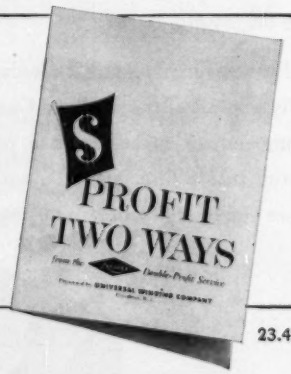
What are the Leesona Pay-As-You-Profit Plans?

Supplementing Leesona Profit Factor Studies, they are Plans designed to help mills strengthen their competitive position while safeguarding their capital and borrowing power. There are two of them — one providing for long-term purchase, the other for long-term lease, of any Leesona twisting and winding machinery.



The Model 10 Ring Twister is a typical Leesona advancement of textile machinery design. By taking advantage of Leesona Profit Factor Studies and Pay-As-You-Profit Plans, many mills are now profiting by the production-improving, cost-cutting features of this and other Leesona twisting or winding machines.

This folder tells you all about the Leesona Double-Profit Service, including Profit Factor Studies and Pay-As-You-Profit Plans. Read how you may take advantage of either of its two valuable features — or combine both to profit *two ways*. Send for your copy today.



23.4.24

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Winding and Twisting Machinery for Natural and Synthetic Yarns

ing.

It is of course impossible to make a really definite statement as to source without doing some physical investigating of the situation at the mill and thus eliminating some of the possible sources. Your reader can do this by following through his processes and actually making yarn contaminated with threads from roll coverings, etc., and examining finished cloth in which the test yarn is woven.

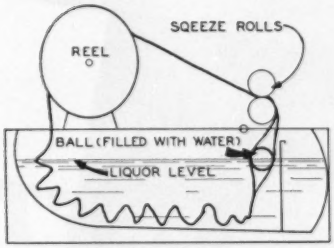
As far as contaminated bales go, elimination will come only when the ginner or rebaler stops trying to save a penny or two by using dirty second-hand burlap for baling.

CONTRIBUTOR NO. 8763

How to Get Even Dyeing on Tubular Knit Goods

TUBULAR knit goods are well known for uneven dyeing, especially with certain classes of dyes and on certain types of fabrics. Here's a kink that may solve your problem, as it did for its originator, W. O. Bozeman of Russell Manufacturing Co., Alexander City, Ala.

Before running the goods through the reel-type machine, insert a rubber volleyball filled with water (or a basketball, depending on the diameter of the goods) inside the fabric. On each pass through the machine, the balls will open the knit fabric so that even dyeing can be done.



The balls remain near the surface of the dye liquor inside the machine, just below the pickup rolls. No difficulty is encountered, except that occasionally a ball wears out.

Easy Way to Break in Spinning Rings

EDITOR TEXTILE INDUSTRIES:

It is always a problem to break in new spinning rings. We put some new rings on our spinning frames about a year ago, and this is the method we followed.

First we secured a small atomizer and filled it with Wynn's Friction Proofing Oil, such as is used in the top bearings of cars.

When the rings were put on they were run for four hours before we changed travelers the first time. On the second change each ring was sprayed very lightly on the doff with the Friction Proofing Oil, and run for eight hours.

The travelers were changed again, the rings again sprayed lightly with oil, and run for 16 hours. The same procedure was repeated, with a 24-hour running period.

The travelers were changed and the rings sprayed as before at 40-hour intervals during the next 120 hours.

After this we changed travelers once each 120 hours, and have run the rings for about a year with no apparent wear, and the finish has not been affected in any way.

Although this procedure may sound like a lot of trouble, we feel that it pays, since speed was not reduced during the break-in period.

CONTRIBUTOR NO. 8755

HOW OTHER MEN MANAGE

What Causes Heavy Yard Near End of Picker Lap?

EDITOR TEXTILE INDUSTRIES:

You may or may not remember a lot of argument some years ago about what causes a very common heavy yard about two or three yards from the end of the lap nearest the pin. It has been repeatedly argued that this is due to the fact that when the picker knocks off, additional cotton is accumulated on the screens, and then when the picker is started up again, the cotton does not get up to the screen in time to prevent the previously accumulated cotton from making a heavy place.

It does not seem to have occurred to the proponents of this theory about the heavy yard that their explanation is perfectly absurd. The amount of cotton in transit between the feed rolls and the screens in the finisher is at any given moment only a small fraction of an ounce, and not nearly enough to account for the increase in weight of the lap, even if the believers that this was what caused it were right.

What makes this theory particularly absurd, however, is the fact that it takes the picker screen around eight or ten seconds to deliver a yard of lap, and it only takes about a fifth of a second for cotton to get from the feed rolls to the screens after the picker is started. The screen will therefore only have moved about half an inch while the cotton is getting back to its normal flow, and of course the little bit of extra cotton blown up on the screen and added to its accumulation has got to be diminished by exactly the same amount during the lag in time re-

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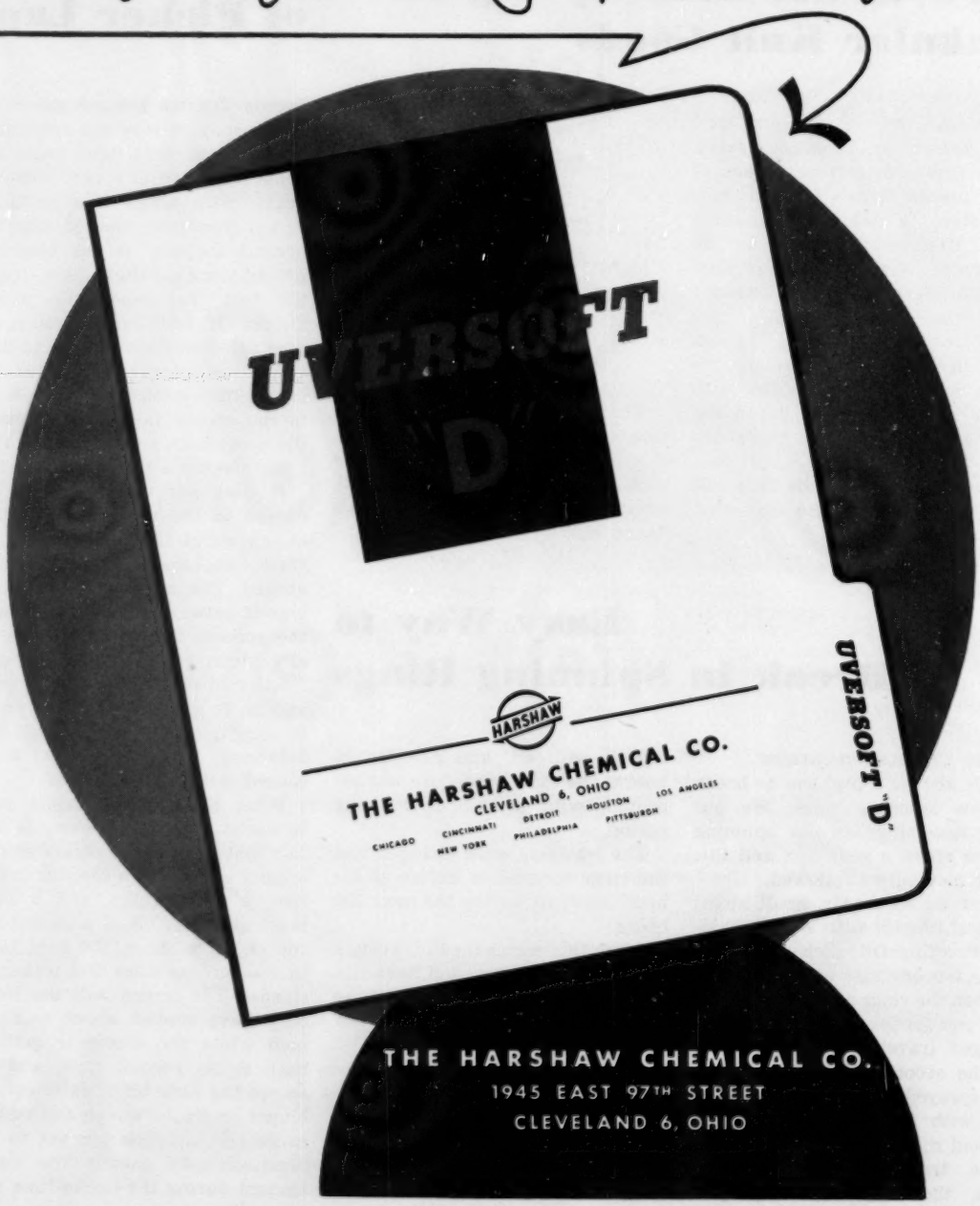


quired to get cotton back to the screens from the feed rolls.

We have always been convinced that what caused the heavy yard in the lap was the fact that while the sheet of cotton is moving under the evener pedals, they are held at a higher level than when the cotton stops and the weight on the evener causes the pedals to bite down into the sheet of cotton. This permits the evener belt to run on a smaller part of the cone to drive the feeds faster as soon as the picker is started.

This will of course make a heavy lap, and the degree of heaviness is determined entirely by how long it takes the pressure of the moving cotton to push the evener plates back up to the normal operating position. In a very sensitive evener this will happen quicker than in a sluggish evener, and in a very sluggish evener it may take several yards of lap to overcome the friction and the inertia of the evener mechanism to get the evener plates back to their normal position.

CONTRIBUTOR NO. 8771

HOW OTHER MEN MANAGE

Move Dyehouses Outdoors?

EDITOR TEXTILE INDUSTRIES:

In the last decade a number of power companies, one of them in Montana, have built central stations with the main equipment out of doors. The companies seem pleased with them and are apparently convinced that in certain cases the buildings that past centuries took for granted are not necessary. Can the textile industry make any use of this idea? Spinners and weavers—probably not. Finishers—perhaps yes.

Mills have carried on wet finishing operations for years with lots of water on the floors. Equipment now is largely of stainless steel, and electrical manufacturers sell motors and controls for outdoor

service—at an increase in price, of course. Perhaps a dye house can run without a roof after all. Let's see what could be done merely by using a little experience from present dye houses plus what other industries have proved when they went outdoors.

First of all, the floor would be of concrete the same as most are now, or of acid-proof brick. There would be no footings for columns over the largest part of the area. The piping would run in trenches near the machines and other trenches would handle the machine drains.

In colder climates the freezing problem could be troublesome. The piping would be arranged so that steam tracers could heat the trenches sufficiently to prevent freezing. Other precautions would

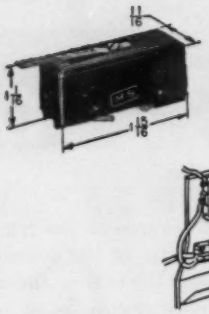
Some Full-Fashioned Sweater Facts

Gauge	Yarn Counts			Approximate Weight/Doz. Lb		Size
	Regular Orlon Worsted Count	High-Bulk Orlon Worsted Count	Specialty Yarns,* Run	Short-Sleeve Pull-Over	Long-Sleeve Cardigan	
12			2/5-2/6½		7-9	Men's
15			2/5½-2/9			
18			2/10-2/13			
21	2/24-2/26			3½-4	5½-5¾	36-38
21		2/28-2/30		2¾-3¼	4½-5	

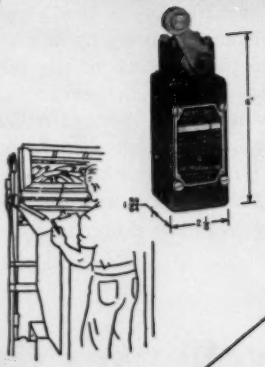
*Cashmere, zephyr, lamb's wool, and Vicara blends.

MICRO SWITCH Precision Switches

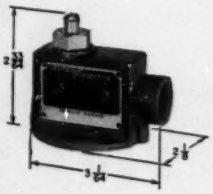
A PRINCIPLE OF GOOD DESIGN



This switch on the bobbin feeler signals need for bobbin refill.

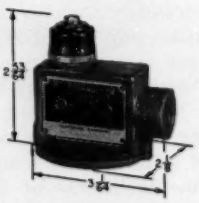


Two switches stop quill hopper carriage at upper and lower limits.

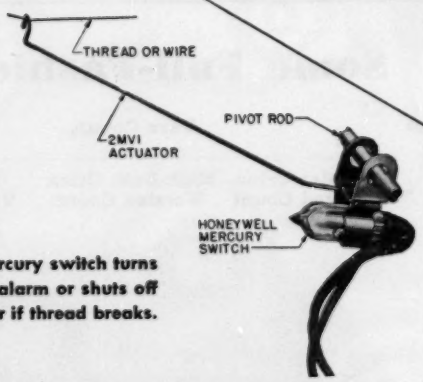


Two switches protect needle beds and stop knitting machine if thread breaks.

HERE'S **5** **MONEY-SAVING IDEAS** from textile mill operators



Switch shuts off power when operator opens gear doors on spinning frames.



Mercury switch turns on alarm or shuts off power if thread breaks.

• These are but a few of the hundreds of uses mill operators have found for MICRO SWITCH products—but a few of the many switch types which make textile machinery more automatic, safer and more productive. Look in the yellow pages for the MICRO SWITCH distributor near you. Call the nearest MICRO SWITCH branch for consultation and advice.

MICRO SWITCH provides a complete line of extremely reliable, small-size, high-capacity, snap-action precision switches and mercury switches. Available in a wide variety of sizes, shapes, weights, actuators and electrical characteristics. For all types of electrical controls.

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H HONEYWELL

be the use of freeze-proof thermostatic traps and good filters to take water out of compressed air.

A small amount of piping runs overhead. This includes gravity-feed chemical lines and dyestuff lines from the central elevated formula kitchen.

Small enclosed heated shelters next to the dyer's office take up a little added room. They have ample window area and are set so that the operators can see the machines.

For loading and unloading machines in rainy or very hot weather there might be small portable awning shelters made of aluminum tubing and canvas. Somewhat larger shelters would allow repairs to machines in wet or hot weather.

How about machinery? The manufacturer would have to make some minor changes in the present becks or kettles. All motors would be outdoor type, totally enclosed and fan cooled, and all wiring and controls would be weatherproof. Most enclosures would need slight design changes to keep the rain out of the dye bath.

Another design consideration would be wind loads against machines. New stiffening would protect against this. The steam requirements would be larger, unless the makers went to the unlikely added expense of insulation.

Freezing danger would again influence design, but only slightly. There might be a short closed steam coil in the tub bottom for emergency use or the design might merely insure that a solid freeze would take place in such fashion that no structural damage would result.

A light visible from the personnel shelter would show when a machine had stopped. The machines might have weatherproofed control and recording instruments near each, or the instruments might all group together in the dyer's office as they do now in a few mills.

Boiloff machines might need an enclosure over the water surface, depending both upon the effect of heavy rain upon the bath and heat losses and vapor clouds from the open surfaces. Jigs would have to be enclosed and weatherproofed and there would have to be a floor-supported frame for a traveling hoist. Kiers and continuous bleaching ranges could be adopted to outdoor service in the same general way. The wind bracing for high J-boxes would be a necessity.

It does not seem possible offhand to set continuous dyeing ranges out of doors. They would need at least overhead cover to protect the many auxiliary operations going on around them and to insure that the cloth going in is dry.

Where would the savings be? In first cost, far less wall and roof, almost no fans or fog eliminators, a much smaller sprinkler system. In operation there would be less painting and maintenance of buildings, fans and piping, less power for lighting and ventilating.

What items would offset these savings? Equipment changes, of course, although they would not add appreciably. The wiring and lighting would cost more, and the small personnel shelters would narrow the difference somewhat. There would be certain extra operating costs — wet weather clothing, portable shelters, waterproof covers for cloth and chemicals, higher steam consumption in cold weather, more maintenance from rusting and direct sunshine.

If anyone attempts an outdoor dye house it will doubtless be in one of the southern states, and if built new, might very well have the package-type steam boilers outdoors, too.

CONTRIBUTOR No. 8760

HOW OTHER MEN MANAGE

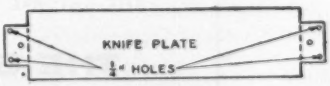
Easy Way to Get Even Settings on Card Knife Plate

This item was submitted in a Kink Contest.

EDITOR TEXTILE INDUSTRIES:

Here's an easy way to be sure of even settings on the Whitin card knife plate:

Drill and tap a ¼" hole in each corner of the knife plate holder, as shown in the accompanying illustration. Use ¼" x ½" Allen screws.



This will make it possible to secure even settings along the full length of the plate, and the plate will not bow in the middle.

CONTRIBUTOR No. 8770

Don't Cut Tailings from Paper Quills!

In response to a reader's request for information on removing strips and tangled yarn from paper quills, TEXTILE INDUSTRIES *asked several manufacturers of bobbin-stripping machines and manufacturers of yarn packages to give their opinions. The following condensation of a letter from a well-known manufacturer of yarn carriers should be of interest to mill men.—Eds.*

EDITOR TEXTILE INDUSTRIES:

You can readily appreciate, of course, that we are categorically opposed to any kind of razor blade or knife being used on the surface of any of our products, as I am sure are all other bobbin manufacturers regardless of the material from which their products are made. As a matter of interest, we have several customers who

consider such mistreatment of bobbins as grounds for immediate discharge.

The corrugations on a bobbin or quill have a direct influence on the drag or ease of delivery in spooling or rewinding; the purpose of corrugations is to control delivery and prevent sloughing. Choice of the correct type of corrugation can only be made after careful consideration of the type of yarn being handled, together with the speed with which it is removed from the package and the tension with which the yarn has been wound in the first place.

For example, where a mill is running on fine-count cotton yarn, whether it be straight warp or combination wind, many mills have found that their tailings can be materially reduced by fewer corrugations along the barrel. On this small specification (the number of corrugations) mills run the gamut from few or no corrugations to highly specialized and many corrugations.

Everyone in the industry is of course trying to pack as much yarn on a package as he possibly can, consequently the bobbin is sometimes either too heavily packed or under too great tension. The result is an excessive amount of tailings.

Since there are so many details which could affect your reader's problem, it is difficult to help him except through these general suggestions. We advise that he consult his bobbin manufacturer and machinery supplier and take whatever steps they recommend.

CONTRIBUTOR No. 8767

A NEW FLOROSEAL

. . . for IMPROVED mill floor maintenance

Through continued research for better products, Selig now offers the textile industry FLOROSEAL LUMX. New FLOROSEAL LUMX has all the fine qualities of regular FLOROSEAL . . . it can be applied easily and dries in one or two hours . . . daily cleaning with buffing mop is speedy and leaves the floor with a sparkling lustre. FLOROSEAL LUMX is *absolutely guaranteed not to darken with age . . . regardless of the number of coats applied!*

For either wood or cement floors, FLOROSEAL LUMX is the last word in a superior seal that keeps out dirt, moisture, grease and oil . . . AND RETAINS THE NATURAL BEAUTY OF THE FLOOR.

THE SELIG COMPANY

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SELIG — QUALITY HYGIENIC SANITARY PERFECTION

American Thread Company has been a satisfied user of Selig products for many years. Pictured below is one of the beautifully maintained mill floors at the Dalton, Georgia plant.

Indian Mill Uses Ancient Size Cooking Method

The following correspondence between Dr. Paul Seydel and an Indian textile mill man should be of interest to readers of TEXTILE INDUSTRIES. *The method of size preparation described will seem fantastically antiquated, but is typical of the procedures that can be retained in a low labor-cost country long after they have become uneconomical in a more industrially "mature" nation.*

Messrs. Seydel-Woolley & Co.
748 Rice Street, N. W.
Atlanta, Georgia, U.S.A.
Dear Sirs:

I am working in one of the cotton textile mills in India. We cook our sizing ingredients as follows:

First we steep vegetable gum in a kettle for about 15 to 20 minutes, then we add china clay and boil for 3 to 4 hours while stirring continuously.

In a second kettle we take starch, an antiseptic, a softener

(Continued on page 147)

CARDING IS THE FOUNDATION FOR QUALITY

NO. 15

Tips on Maintenance of Woolen and Worsted Cards

Importance of Proper Maintenance

Depending on the quality of the maintenance program in effect, a woolen mill can either sustain greater losses or conversely make greater savings in the carding than in any other department. With proper card maintenance, high quality roving will be produced capable of being spun into quality yarn at minimum cost.

Proper Routine is Essential

Schedules for the grinding, stripping and setting of the cards should be maintained to prevent unnecessary loss in production, poor roving and damage to card wire.

1. An adequate grinding schedule will be determined by the type and condition of the stock being processed, number of pounds per hour put through the card and any damage that might have been sustained by the card clothing due to facing, jams, etc., since last grinding or inspection. Correct grinding is essential to good carding and is one of the determining factors in the production of quality yarns.

2. A basic principal in the production of quality roving is that different classes of wool require different settings from breaker to finisher card and a change in stock may readily mean a change in settings. A periodic check of the settings should be made by one who has been instructed as to what constitutes the proper settings of the individual rolls on the card.

3. As in grinding, the stock being run will determine how often the card should be stripped. Failure to strip often enough will cause damage to the card wire and poor roving. Improper stripping, i.e., negligence on part of the strippers to clean feed rolls, lickerins, etc. will also result in damage to the wire and poor carding.

Card Inspection

As with any other piece of machinery, it is necessary to maintain a continual check on the mechanical condition of the cards.

1. When the card is stopped for grinding, always check the level and alignment of the card, look for worn bearings, gears, shafts out of true, broken parts, etc. In addition to an adequate supply of card clothing, emery fillet, etc., it is a good idea to maintain a small inventory of miscellaneous spare parts for the card, thus reducing "down time" if an accident should occur.

2. Strippers should be instructed to clean clogged gears, chains, etc., and to remove excessive fly which accumulates on the card. The stripping and maintenance of the metallic breast is essential to good carding and must not be overlooked whenever the cards are stopped for stripping.

3. Periodic checks on the oiling of the card should be made to see if instructions, in regard to proper lubrication, are being followed. Without sufficient lubrication, extreme wear will occur and serious breakdowns may be the result. At the same time, all belt tensions should be checked, as belt slippage is often one of the causes for poor and uneven roving. Excessive belt tension will cause bearings to over-heat which naturally results in abnormal wear.

4. The following equipment used to maintain card room operations should be checked periodically.
   a. Traverse Grinders — emery fillet, etc.
   b. Clothing Machine — step cone pulleys and tension box surfaces should be smooth and even. Tension scale should be recalibrated when necessary.
   c. Bent or worn card gauges should be replaced.

Summary: An adequate and effective maintenance program is essential in the running of an efficient card room and the production of quality roving.

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please turn the page ▶

Platt's Metallic Wire for your cards, in place of flexible card clothing, is suitable for certain classes of work on cotton, worsted or synthetic fibre cards. Its suitability for YOUR purposes should be determined by consultation with us.

It offers the following 3 point profit program:

1. Increased production.
2. Marked decrease in stripping.
3. Elimination of grinding.

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American Card Clothing Co. (Woolen Division)

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PRODUCTS AND SERVICES

Clothing for Cotton, Wool, Worsted, Silk, Synthetic Fibre and Asbestos cards and for All Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Top Flats Reclothed.

(Continued from page 144)

like mutton tallow, castor oil, and sulfonated oil, and steep for 2 to 3 hours.

The mixtures from the first two kettles are then boiled together for one hour in a third kettle to prepare the size for use at the slashers.

We manufacture grey goods only, and use china clay to add weight. We also use magnesium chloride in our size mixture.

I would like your advice, point-by-point, on the above procedure.

Second, why is it recommended that split rods be used when the yarn leaves the size box? Does the wet size stick to the rods and cause the threads to wrap around them?

Bluing is also used in preparing size; should this be an acid blue or an alkali blue? For giving a white appearance to grey goods would you recommend a blue with a violet tinge or a blue with a greenish tinge?

I. D. (*India*)

Dear Sir:

To be perfectly frank with you, the method of size cooking you describe has not been carried out in the United States by any mills to my knowledge within the last 30 or 40 years, so we could not tell you whether or not it is the proper way to cook so heavy a mix.

Here we size for a maximum pick-up on the warp of 18 to 20 per cent, but much more commonly about 10 to 14 per cent, depending on the difficulty of the weave. The practice of putting on weight on the warps has been practically discontinued in this country. If we wish weight on the goods we normally put it on the finished goods, and on such loom finished goods as denims we very rarely put more than 14 per cent of size on the warp.

Furthermore, we customarily use nothing but starch and specially prepared compounds which are manufactured by people like ourselves to be used with the starch. For example, compounds such as Seyco 17 contain all the necessary ingredients in a balanced blend—lubricants, softeners, antiseptics, gums, and any anti-foaming ingredients that may be necessary.

With reference to the use of split rods between the size box and the drying section, with our method of sizing if the split rods are kept turning slowly the wet size does not stick to the rods. With the type size you are using, and as heavy as you are sizing, I suspect that the size would stick to the rods, although it would be necessary to try it before being certain.

With regard to your questions on bluing, we would recommend a blue with a purplish or violet tint

to get the maximum of white color. Other than that the type of blue is not very important, and almost any bluing will give a satisfactory whitening effect.

PAUL SEYDEL, D.Sc.

NON-FLUID OIL
TRADE MARK REGISTERED

UPS TWISTER OUTPUT!

Ordinary ring oils and greases cause strain on yarn—from traveler friction on rings. Result: broken yarn ends—black yarn—lowered output.

NON-FLUID OIL ups output by staying on rings, lubricating effectively. Result: Increased production of perfect twist; savings on lubricant and application cost.

Used successfully for years by most leading yarn and thread mills. Want proof you can do the same? Send for free testing sample.

TI

NEW YORK & NEW JERSEY LUBRICANT COMPANY
292 MADISON AVENUE, NEW YORK 17, NEW YORK
Works: Newark, N. J.—Warehouses and representatives in principal industrial centers

Please send me, without obligation, a free testing sample of NON-FLUID OIL.

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FIRM_____

ADDRESS_____

TYPE OF MACHINERY_____

DON'T OVERLOOK JOBS THE AXIAL FLOW DOES BEST!

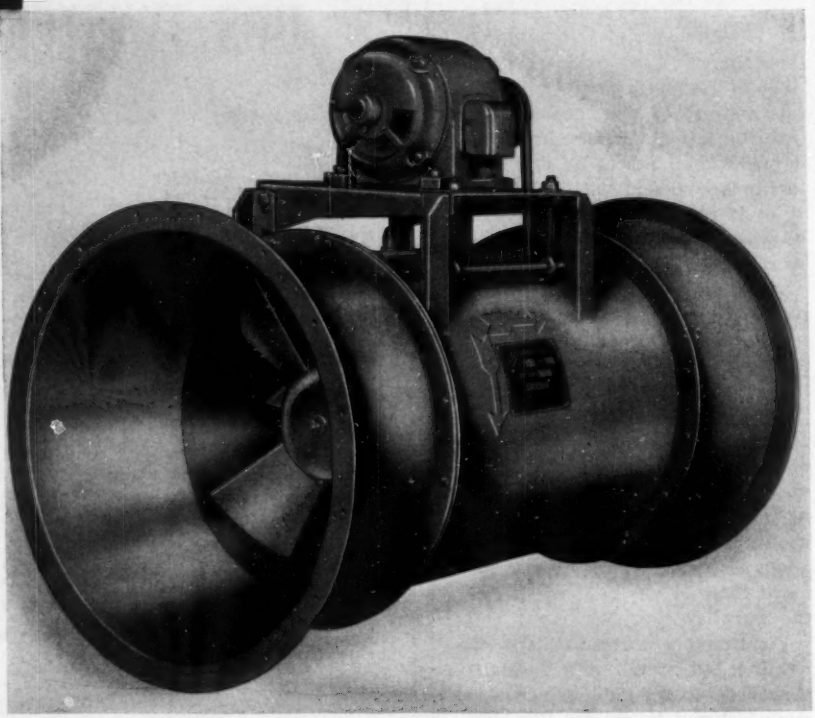
The axial flow fan design offers distinct advantages well worth considering for a growing variety of jobs:

1. STRAIGHT LINE EFFICIENCY. Being basically designed for duct mounting, the axial flow is at its best when mounted in straight duct runs. "Buffalo" Axial Flows are giving excellent service as duct-mounted "boosters" in systems—also as light-duty ventilation, exhaust and industrial air conditioning supply fans.

2. LIGHT WEIGHT. This permits economical installation. In all but the very largest sizes, no heavy foundations or structural support are required. "Buffalo" Axial Flow Fans are often installed as part of the pipe or stack in hood and vat or other roof exhaust systems.

3. SPACE SAVINGS. These duct-size fans fit in close to walls or ceilings. Space-saving applications vary from paint spray booth exhaust to forced draft for cooling towers — from circulation of chilled air in quick freezing to boiler room cooling. Here, high efficiency influences the choice, as well as compact size.

Naturally, all axial flow fans are not alike. When you specify "Buffalo", you assure your customer the top performance inherent in the "Q" Factor*. Write today for Bulletin 3533-EF for full details.



Right, "Buffalo" Type "B" Vaneaxial Fan. Outlet guide vanes smooth out air flow for greatest efficiency and quiet operation. Available for high or low temperatures, corrosive fumes, explosive atmospheres, etc.

NOTE: No one fan is the answer to every problem. "Buffalo" builds all types, including broad lines of centrifugal and propeller fans. Full details on request.

**The "Q" Factor — the built-in Quality which provides trouble-free satisfaction and long life.*

"Buffalo"

BUFFALO FORGE COMPANY

175 MORTIMER ST. BUFFALO, N. Y.

PUBLISHERS OF "FAN ENGINEERING" HANDBOOK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

Sales Representatives In All Principal Cities

VENTILATING AIR CLEANING AIR TEMPERING INDUCED DRAFT EXHAUSTING FORCED DRAFT COOLING HEATING PRESSURE BLOWING

New standards in light fastness

LUMICREASE COLORS

The trend is toward brighter colors, faster-to-sun, in automotive, upholstery and decorative fabrics, and LUMICREASE COLORS by Sandoz are helping to speed the trend.

The LUMICREASE line of direct colors was developed for cotton and viscose. Three of the newest and fastest colors are: LUMICREASE GREY 3LB, pat.; LUMICREASE GREEN 3LB, p.a.f.; and LUMICREASE ORANGE 3LG, pat. These have created new standards in light fastness in shades of green, tan, taupe and grey, and are unequalled by any other products on the market today.

Ask Sandoz laboratories to match your shades. Branch offices:

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2215 Tioga Street

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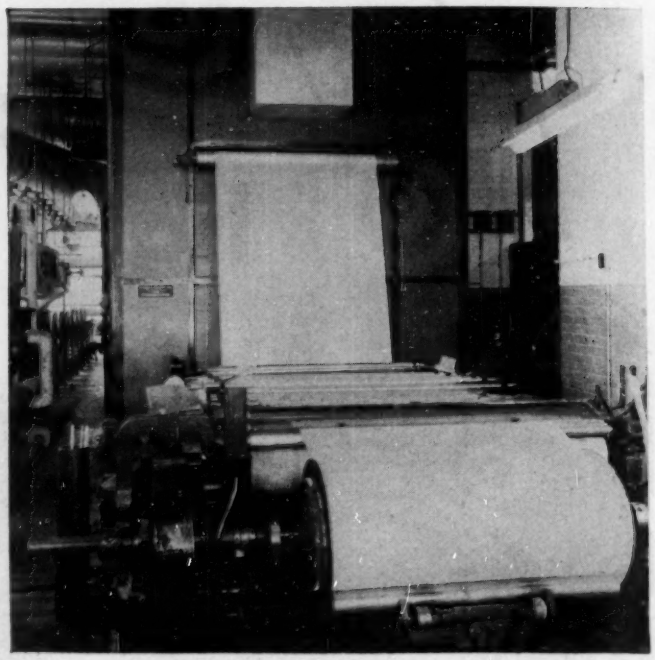
179 King St. West

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y.

SANDOZ

SANDOZ THINKS AHEAD WITH TEXTILES



Increased Production AT LESS COST

with the

PROCTOR *Par Flow* HOT AIR SLASHER *Dryer*

INCREASED PRODUCTION IS ASSURED WITH

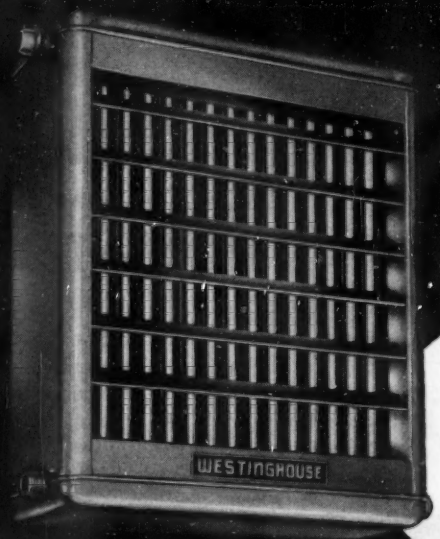
- Patented parallel flow nozzle ducts which prevent warp tangling and rolling.
- Complete accessibility for easy cleaning.
- Availability in various sizes to meet plant requirements in capacity and warp width.

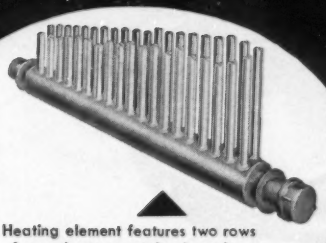
PROCESSING MACHINERY FOR FIBERS AND BLENDS

PROCTOR & SCHWARTZ INC. PHILADELPHIA 20 • PA •

Fact:

Westinghouse CLOG-FREE Speedheaters Stop Lint Accumulation in Textile Heating





Heating element features two rows of smooth steam-condensing tubes without lint-gathering fins.

Designed specifically for Textile Mills

With these Westinghouse Speedheaters, lint and dust build-up cease to be a problem. A special non-clogging heating element (see cut) maintains rated heat and air output. This ends shutdowns and maintenance time.

All units include quiet, efficient Westinghouse propeller fans, all-copper heating elements, adjustable horizontal louvres.

Result: instant heat, when and where you want it! You are free of the fuss and bother of frequent lint and size accumulation.

A FULL LINE

Clog-free Speedheaters are available in eight sizes ranging from 23,000 to 120,000 BTUH-Westinghouse Standard Speedheaters—horizontal and downblast—up to 300,000 BTUH. (Ratings at 2 PSI-60° air.) More at higher steam pressures.

ECONOMICAL TO OPERATE

Check on these efficient, economical Westinghouse Speedheaters today! They are adaptable for spot or general heating, comfort or process . . . and inexpensive to run.

MORE FACTS?

Call your nearest Westinghouse-Sturtevant Sales Engineer . . . he's the "Man with the Facts" on heating, ventilating, and electronic air cleaning . . . or fill in the coupon below.

WESTINGHOUSE AIR HANDLING

YOU CAN BE SURE...IF IT'S

Westinghouse

J-80430

Westinghouse Electric Corp.
Sturtevant Division, Dept. 13B
Hyde Park, Boston 36, Mass.

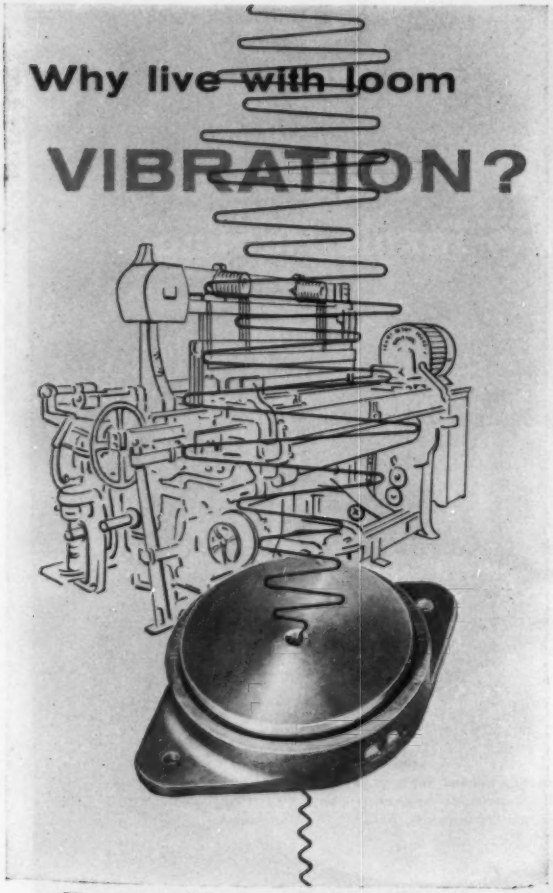
Please send more information on your Clog-free Speedheaters.

NAME AND TITLE .....

COMPANY .....

CITY ..... STATE .....

Why live with loom VIBRATION?



The unique deflection principle of Silentbloc rubber-in-metal mounts can make loom vibration a thing of the past. Just four units will convert the noisiest loom ever made into a smooth-running, exceptionally quiet machine.

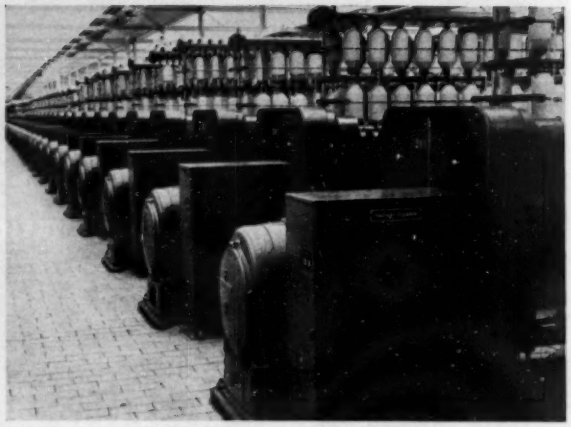
For catalog and details of our free trial plan on Silentbloc rolling joint mounts write to The General Tire & Rubber Company, Industrial Products Division, Dept. G, Wabash, Indiana.

"From Plans to Products in Plastics and Rubber"

These are General Tire Industrial Products now serving Industry

Silentbloc vibration and shock mountings · Silentbloc bushings · Silentbloc bearings · Oil & hydraulic seals · Bonded to metal rubber parts · Hydraulic brake parts · Metal stampings · Extruded & molded rubber · Extruded plastic · Polyester glass laminates · Sponge rubber · Glass run channel · Vibrex® fastners

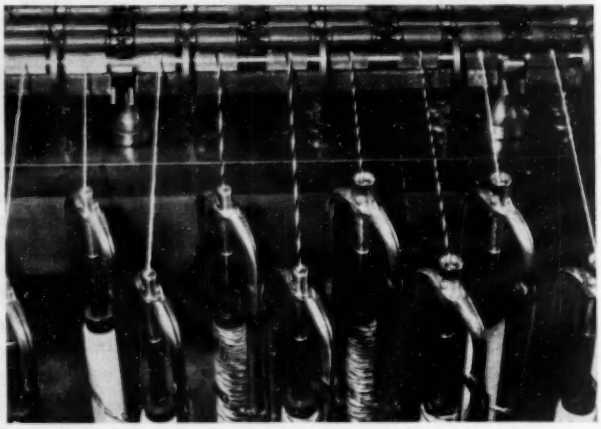
THE GENERAL TIRE *Industrial Products Division* WABASH INDIANA



THOMA CLEANER

THOMATEX

The suction device for cotton and wool ring spinning frames and carding sets. Thomatex installation with Central Air Exhaust, combines advantages of individual units and a central station. Thomatex uses a minimum of power. Motor and fan are directly coupled and located in the air stream. Seamless Duraluminum Suction tubes are specially coated.



ROTAFILS FOR ROVING FRAMES

Rotafils reduce ends down; increase weight of roving bobbins, result in higher processing speeds and better roving regularity.

THOMA COMPANY

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STELLITE AMERICAN CORP.

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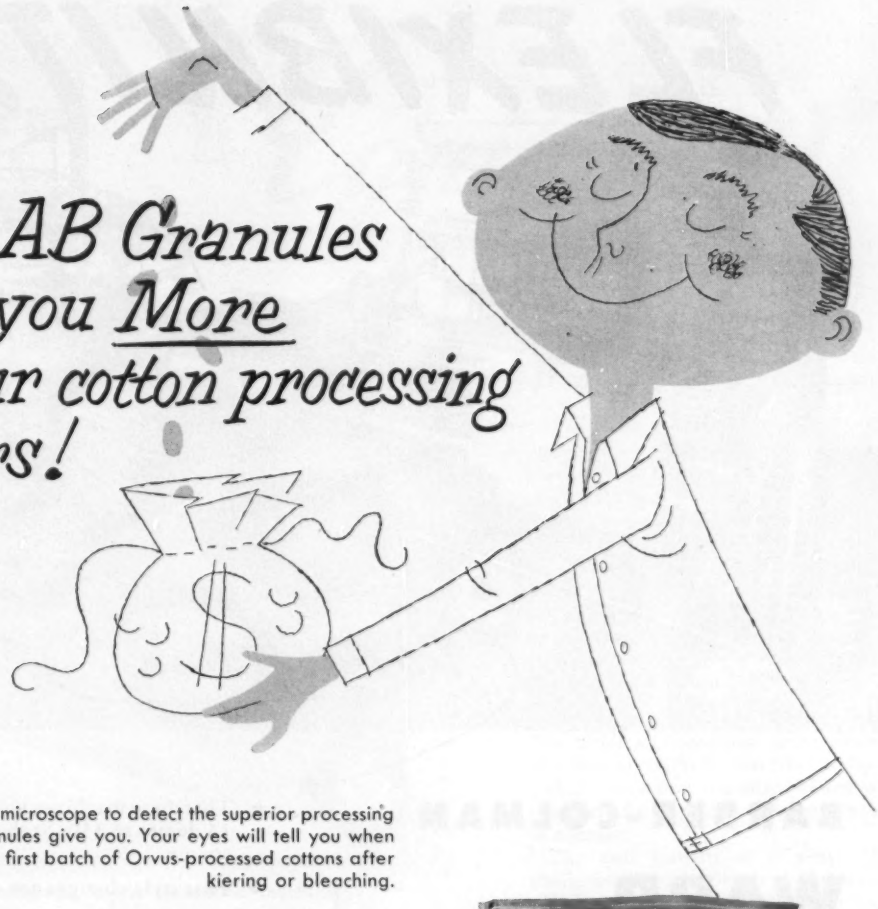
Orvus AB Granules give you More for your cotton processing dollars!



You won't need a microscope to detect the superior processing results Orvus AB Granules give you. Your eyes will tell you when you examine the first batch of Orvus-processed cottons after kiering or bleaching.

In the kier, Orvus AB helps reduce boiling time . . . lowers materially the amount of caustic needed. You'll find the cloth in better condition for bleaching; dye resists are less. This time-tested synthetic has not only exceptional detergent properties, but the ability to hold in suspension the waxes, pectins and other foreign materials which kier boiling must remove.

In the bleaching operations which follow, the performance of Orvus AB Granules is equally efficient. Its superior wetting properties provide more thorough penetration of the bleach, and faster bleaching. In desizing, a small amount of Orvus AB accelerates action of the enzyme. On heavy fabrics it helps carry the enzyme into the cloth itself. And Orvus AB is compatible with all types of enzymes.

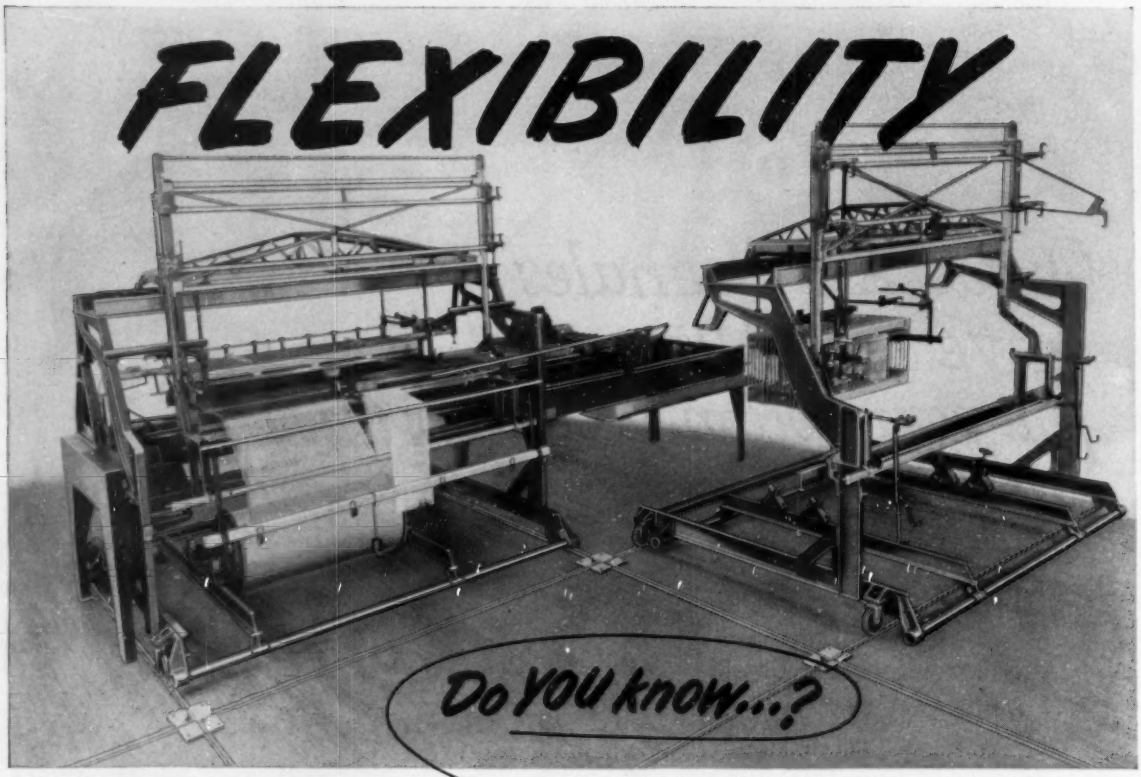
You'll discover other Orvus advantages when you've given this efficient synthetic detergent a thorough test. Make that test *soon!*

A neutral synthetic detergent of the sodium alkyl aryl sulfonate type.

Procter & Gamble

TEXTILE FINISHES SALES DEPT.
CINCINNATI, OHIO

Makers of Olate, Proxols, Orvus and Kyro products—for smoother textile processing.



BARBER-COLMAN

WARP DRAWING MACHINE

BARBER COLMAN

- That these machines will draw a range from 15 denier to 350, or the equivalent in other counts.
- That style changes are *easily* made.
- That you can vary the materials being drawn with *no time lost.*
- That varying the width of warp involves *no* mechanical changes.
- That heddle frame lengths may vary.
- That a machine will accommodate heddles from 11″ to 17″ deep.
- That beams up to 32″ head can be handled.
- That while one warp is drawing, you can be loading or unloading others.
- That a machine will draw from flat sheet or leased warp, two of either or any combination.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

BARBER-COLMAN COMPANY

ROCKFORD • ILLINOIS • U. S. A.

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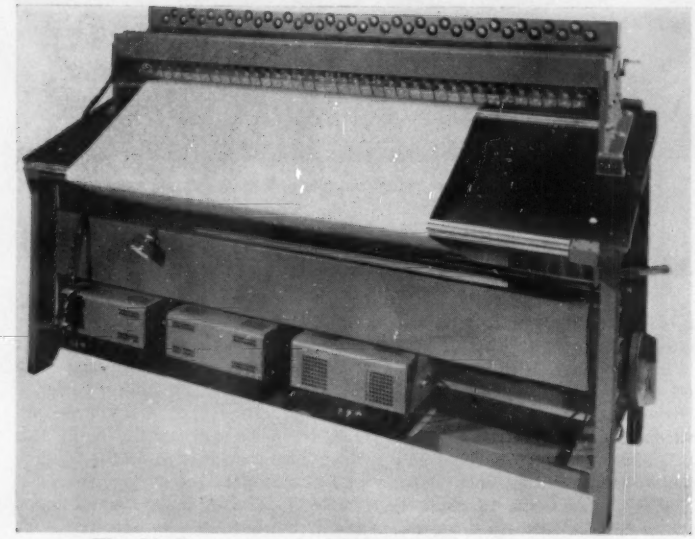
NEW Equipment AND MATERIALS



The Lindley automatic fabric inspection machine.

Save Time and Labor with Automatic Fabric Inspection Equipment

Automatic fabric inspection equipment now available provides substantial savings for mills that weave all types of fabrics as well as dyeing, bleaching, and finishing plants.

Basic Machine. The basic machine consists of a series of interlocking detecting feelers that detect raised defects in fabric as it is passed beneath them. An electrical contact is made which, when mounted on a calender roll or shear, automatically raises them and allows the defect to pass without causing costly damage, and when mounted on an inspection frame in conjunction with various accessories described below, becomes a most efficient, time saving automatic inspection machine for all fabric, except that which is made from nubby yarn.

For use on a shear or calender, it can operate at speeds up to 150 yards per minute with a minimum loss in material in the raising and lowering operation. A micrometer adjustment permits settings from .001 of an inch upwards.

Seams, large slubs, and any raised defects harmful in the operation can be detected by proper setting. It will only detect the sizes the machine is set for. Small defects that do no harm in the operation can pass through. Large ones that do not necessarily run across the width but can cause damage are detected.

The basic width detector is 50 inches; however, greater or lesser widths can also be obtained to suit the machine to which it is to be attached.

The Lighting Unit. For automatic indication of raised defects over an inspection frame or perch, the lighting unit is attached to the basic detecting machine.

When a raised defect is detected, a light appears directly above the defect and at the same time a bell rings to call the attention of the operator to the defective area. The machine can be brought to an automatic stop with the indicating light remaining lit, so the defect can be removed or graded; or it may be visually graded as it passes without stopping the machine, depending on the material and the allowable tolerances.

Automatic Marking Attachment. The automatic marking unit, when attached to the basic machine, places a chalk mark over the raised defect as it passes. No stopping of the machine is necessary.

The unit consists of a series of chalk boxes mounted on solenoids, with a time delay incorporated in the controls, each chalk box being wired to a feeler on the basic machine. Speeds up to 45 yards per minute may be obtained when this unit is being used.

This attachment is particularly advantageous when burling and mending is done in a subsequent operation—the mender simply looks for the chalk marks which stand out clearly directly above the defective area.

Mispick Detector. This unit detects mispicks, broken picks, thick places, thin places, etc., or defects more easily described as below the surface of the cloth. It can be attached to the basic machine and adapted to register on the same permanent recorder as the raised defects.

This unit can also be placed on any standard inspection frame for use on many types of other cloth with raised designs or novelty weaves where raised defects are permitted, but the above mentioned defects are not.

Sensitivity of the unit can be adjusted by turning a single dial.

The mispick detector and the basic

machine are all that is necessary to detect filling defects automatically.

Recorder, Grader, and Counter. When attached to the basic machine and mispick detector, this attachment automatically records the number of filling defects in a piece of material, the yard in which they appear, and indicates the approximate size.

Since warp defects cannot be detected automatically, an operator cannot be completely eliminated. To assist the operator in recording them, a keyboard of five finger buttons is made a part of the recorder and grader. When a warp defect appears, the operator merely presses the numbered button corresponding to the size and type of defect and it will record on the same record along with, but defined from, the filling defects. No stopping of the material is necessary. The basic machine and mispick detector automatically detect the filling defects and the operator detects the warp defects, all being automatically recorded while the material is running.

At the end of a piece of material, or a roll of material, the record is removed from the recorder. Grading of the paper, which is a condensed picture of the piece of material, is all that is needed to pass the material as a first or second quality.

For cottons, rayons, etc., material can be run through the machine very rapidly without stopping to remove any defects. Only the portion graded as seconds from the marked record need be re-run to be repaired and possibly made into first quality.

The savings resulting from this method of inspection would be great since the material would be run at a continuous speed of 40 to 50 yards per minute or more.

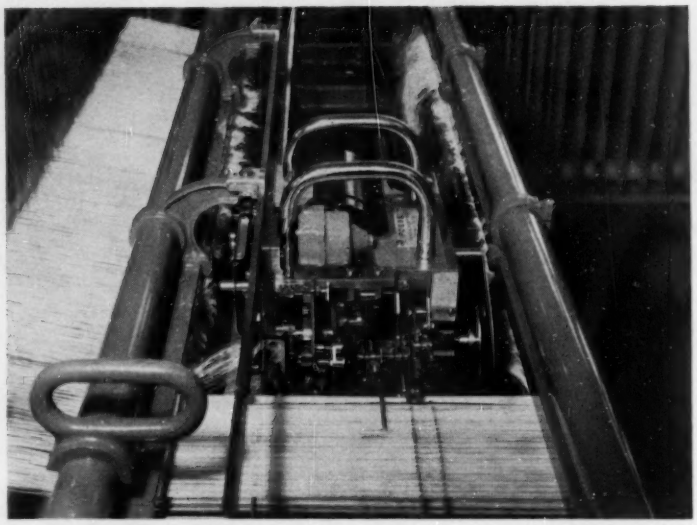
Inspection Frame. The inspection frame is a compact unit, equipped with a through-light, motorized with forward and reverse motion and a variable speed drive.

Although the unit is designed particularly for all of the Lindly automatic fabric detector accessories, it can also be used for other types of mill inspection operations.

Maintenance. The inspector, who operates the machine, can be taught how to maintain, check, and adjust it in a maximum of four hours. No engineer, maintenance man or electrician is necessary to keep the machine in operation.

Lindly Instrument & Machine Corp., 248 Herricks Rd., Mineola, L. I., N. Y.

More Data? Write ◆ or use card, p 171; list C-101



Fischer-Poege warp tying machine (Stellite American).

Machine Ties 16-20 4000-end Warps Daily

The Fischer-Poege warp tying machine, adaptable to all kinds of yarn with the exception of jute, can be utilized on warps with and without lease for tying either at the loom or away from the loom, as desired.

One machine with one tying frame is able to tie ten 4000-end warps daily; with two frames, 16-20 4000-end warps may be tied. By using two or three tying frames, the knotter may be in continuous operation without stopping except for the time necessary for moving it from one frame to another. While tying on one frame, the second can take up the warp from another empty loom.

Only 1¼ hours are required for tying-in a warp on a Jacquard loom weaving damask or similar patterns.

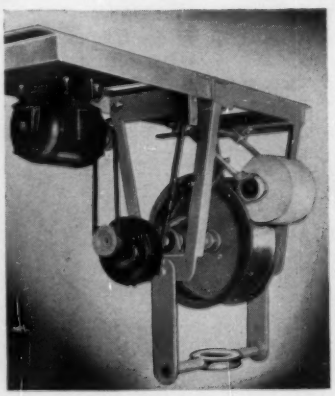
Tying a fine end to a coarse end can be done successfully with this machine because each end is held in one of two parts of the gripper until the ends of the yarns have passed the weaving knots.

Portable and stationary tying frames are available in three different widths.

Stellite American Corp., 60 East 42nd St., New York 17, N. Y.

More Data? Write ◆ or use card, p 171; list C-102

3-Way Reel for Wet Processing Is Quickly Adaptable



An improved 3-way reel with features which make it readily changeable from an idler reel to a driven or drag reel, has been announced.

Made up of standard interchangeable stocked parts, these reels can be furnished as a basic unit, idler reel, as a driven type reel, and as a drag reel by addition of a rubber covered rider roll. When furnished as a driven or drag reel, these units can be supplied with or without either drive motor and/or speed reducers. These interchangeable features permit changeover at any time to suit most mill requirements.

Other outstanding features of the

reel are large diameter stainless steel flanged drum type reel, welded steel framework which supports the various parts in a compact integral unit, stainless steel pot-eye that can be positioned through an 180° arc, heavy duty reducing unit, and a standard drive motor.

Large surface contact between the reel and rider roll insures an even pull without distortion.

Wiesner - Rapp Co., 1603 Seneca St., Buffalo 10, N. Y.

More Data? Write ◆ or use card, p 171; list C-103

Improved Saran Has Greater Light Stability

A new formulation of saran resin for monofilaments has been developed. According to the manufacturer, the new material, now being supplied to the industry, is already proving of interest to the weavers of saran fabrics for lawn furniture, automobile seat covers and upholstery, and window screening. Also it is expected to enter new markets such as Venetian blind tapes and awnings.

The formulation offers greatly improved light stability, controlled shrinkage, reduction of static, and good extrudability. The resin retains other features, including toughness, resistance to mildew or stain, and excellent cleanability.

Fabrics woven of the improved saran show several times the light stability of the former resin. This property plus a lighter base color of the material permits broader color range, including pastels. The result will be improved color styling of all fabrics.

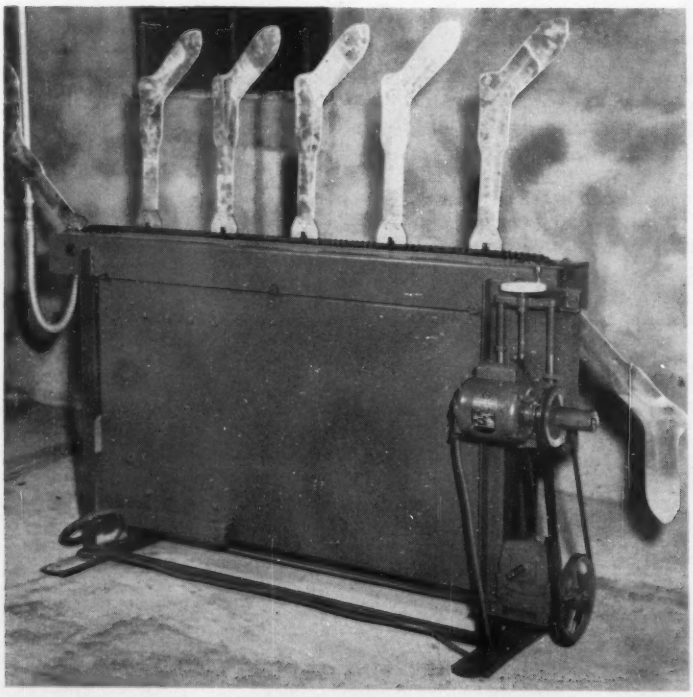
The Dow Chemical Co., Midland, Mich.

More Data? Write ◆ or use card, p 171; list C-104

Seamless Hose Boarding Machine Heated by Infra-Red Rays

Many advantages for boarding and pre-boarding seamless hosiery are offered by a new automatic boarding machine called the Convamatic Boarder.

The new unit greatly increases the production rate, operates on extremely low power consumption, is easy to install and operate, and is so cool in operation that more comfortable working conditions are provided for operators.



The heating panel, which employs infra-red light rays, is readily accessible for efficient cleaning and servicing. The settings for speed and heat are quickly and simply made. There is a convenient work tray attached directly to the machine; and an automatic stripper attachment, which can be placed on the machine, will increase production even more. A clipper trims loose threads.

The basic machine can be set at speeds up to 200 dozen per eight hours, and with the stripper attachment up to 300 dozen per eight hours.

Process Machinery Co., Inc., 2506 Ashe St., Durham, N. C.

More Data? Write ◆ or use card, p 171; list C-105

New Accident Prevention and Cost Cutting Tool

To reinforce the efforts of the supervisory organization in developing productive employee attitudes and reducing manufacturing costs and accidents, the Poster Slide Company has developed safety and productivity impact posters on full natural color 2 x 2 Kodachrome slides which are projected from behind a special translucent plastic screen in the Admatic automatic slide projector.

The poster-slide program, called Automatic Education, consists of a monthly program of 30 impact poster slides, projected automatically on a 7-second interval in the automatic projector. The projector unit, which stands approximately 5½ feet high, occupies floor space 28" wide and 18" deep. It shows a brilliant picture 16 x 23 inches in size, clearly visible for 50 feet or more.

In action, 15 poster slides on a safety subject are intermixed with 15 poster slides on a productivity subject for continuous showing automatically, 8 hours a day, 24 hours a day, or at predetermined intervals of an hour or two at lunch periods or shift changes.

Each set of 15 slides on safety and each set of 15 poster slides on productivity has an accompanying training guide for use in foreman and supervisor training sessions. The pro-

jector has a stop-and-go control which permits "freezing" of any poster-slide at any time so that it may be held in position for discussion. This is especially valuable in safety meetings concerned with right and wrong shop practices, housekeeping conditions, analysis of machine guarding problems, and similar safety discussions.

The glass-mounted slides used in the projector are standard 2 x 2 Kodachrome slides, such as any personnel or safety man can take with his own conventional 35mm camera. The projector will accept these "home-made" slides equally well to supplement the standard poster-slide program; or the standard slides may be used in any conventional 35mm slide projector.

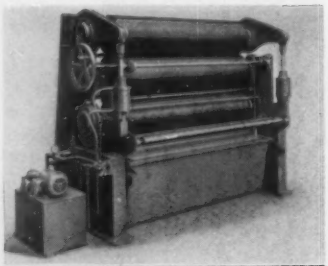
The projectors are available on either an outright purchase or rental-purchase plan. Poster slides are sold outright either in a bulk "library" of sets, or on a monthly subscription plan at nominal cost per month.

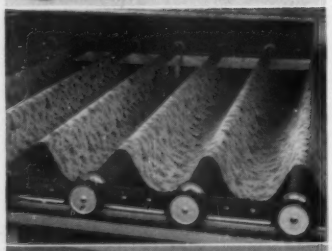
Poster Slide Co.'s automatic projector.

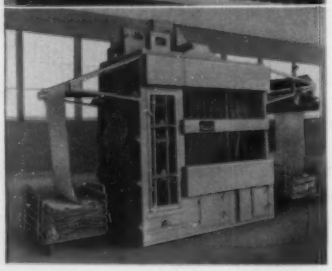
Poster Slide Co., 10 East Kinzie St., Chicago 11, Ill.

More Data? Write ◂ or use card, p 171; list C-106

New Machines for Applying Resin Finishes







Top photo: Padder.

Center photo: View inside a short loop dryer, showing how fabric is conveyed through the machine on rotating poles.

Bottom photo: Curing unit.

Below: Continuous range consisting of (left to right) padder, short loop dryer, and curing unit.

Recently placed on the market were three machines which can be utilized in one range for the continuous application of resin finishes to textile fabrics—a three-bowl padding mangle, short loop dryer, and curing unit.

Following are some of their features:

The Padder. A long liquor path and two times dipping and squeezing introduce the resin particles with the solution water into the interior of the fabric and fibers. An outstanding feature of this machine is the especially deep V-trough for the first immersion, enabling a long passage of the fabric. A displacement body which can be heated or cooled reduces the contents of the trough to a minimum, insuring quick renewal of the liquor as well as a constant concentration.

Each of the three bowls can be easily removed. The middle bowl is firmly connected to the support, while the upper and lower ones are supported by levers so that these two bowls can be pressed against the middle one pneumatically or hydraulically as desired. Pressures up to 15 tons can be applied, and even squeezing of the fabric over the whole width is insured. By switching off the top bowl, the machine can also operate as a two-bowl padder.

Short Loop Dryer. In this dryer the successive short loops roll over rotating poles which travel together with the conveyor chain, thus the spots of fabric touching the poles change continually so that markings are avoided. Air passes in cross-current over both the sides of the width of fabric.

High drying temperatures are not required for high production—thus pre-curing or prebaking is avoided. Temperatures can be maintained as desired.

High air speed leads to evaporation of water over the whole cross section of the fabric, resulting in deposits of resin in the interior of the fabric. Air velocity can be regulated as desired.

Absolute evenness of drying on both sides of the fabric is provided. Air is evenly admitted on both fabric sides in the five tiers of the machine.

Tensionless drying is assured. Cloth is free to move both warp- and fillingwise, can shrink without interference. Passage through the machine without creases is guaranteed and the fabric leaves the dryer with a full and soft handle.

Curing Unit. The curing process is divided into two operations: (1) uniform warming up to 150 C, and (2) maintenance of the cloth at that temperature for a period of four minutes. The first is accomplished in the heating-up chamber of the unit by infra-red radiation; the second in the convection chamber. A unique V-belt system for driving conveyor rollers maintains low fabric tension.

The continuous range is arranged as follows (from entering to delivery end): Padder, short loop dryer, curing unit. Where desired, a tentering frame can be included between the dryer and curer.

Maschinenfabrik Friedrich Haas GmbH, Postschliessfach 25, Remscheid-Lennep, West Germany.

More Data? Write ◂ or use card, p 171; list C-107

Selvage Tagging Device Operates Like Stapler, Saves Time and Labor

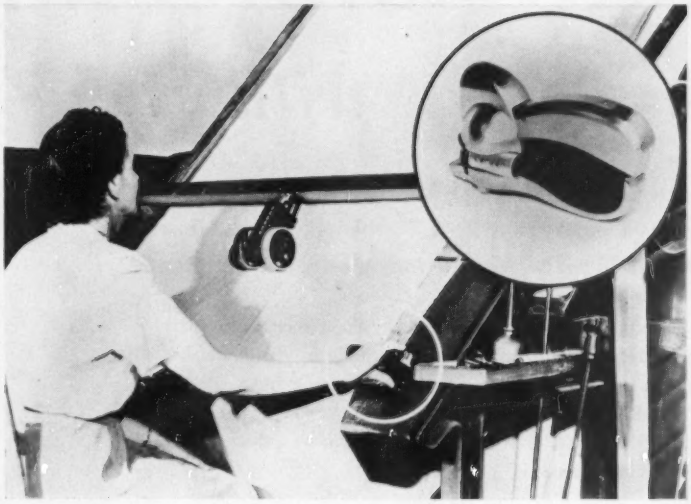
The Mark-Fix 3 is a device for putting thread tags in the selvages of cloth (whether on the loom, the inspection table, or in the dye house).

Similar in ease of operation to an ordinary stapler, the Mark-Fix 3 inserts any desired color thread loop to mark cloth for defects, mispicks, spots, streaks, and in other instances where marking is now done by hand-sewing.

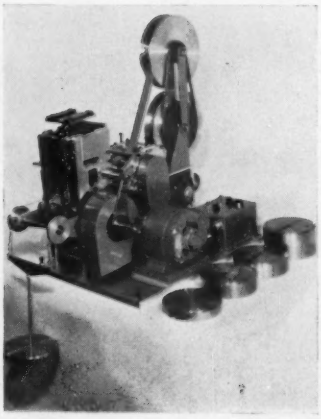
One mill uses Mark-Fix 3 exclusively for making shift marks. Studies in another mill show, from labor savings alone, an annual investment return of over 300% when Mark-Fix 3's replaced hand tagging at its cloth inspection tables.

Uster Corp., 2516 Wilkinson Blvd., Charlotte 8, N. C.

More Data? Write ◂ or use card, p 171; list C-108



Abrasion Tester Features Moving Abrasive



The CSI-A Abrader.

The CSI-A Abrader recently announced determines the resistance to abrasion of flat surfaces of material, measured in terms of volume loss.

This instrument has the following advantages: (1) moving abrasive; (2) heat dissipation; (3) alternate and intermittent periods of abrasion; (4) range of application; (5) directional abrasion.

Essentially, the machine consists of two independent units: (1) a vertical track which carries the specially prepared specimens around to meet the abrasive, and (2) a carriage which rests on roller bearings and has provision for keeping a strip of abradant in continuous motion while abrading the samples. The directions of motion of the abradant and samples are opposite, and contact between the two is maintained by dead weights attached to the carriage by a cable-spring-pulley arrangement.

The capacity of the abrader is 6 to 8 test specimens, depending upon the number of calibration zinc specimens. The size of the sample tested is ⅞ x 2¼".

Custom Scientific Instruments, Inc. Arlington, N. J.

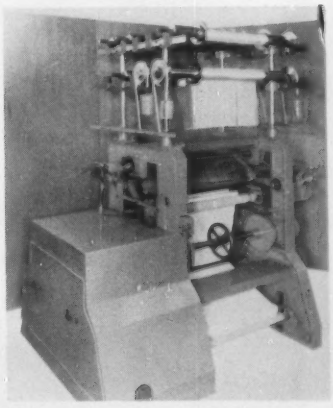
More Data? Write ◂ or use card, p 171; list C-10

10-Bar Sampler Raschel Machine and Indirect Pin-Type Warper

The Queens 10-bar sampler Raschel machine, Model R-100, was developed primarily for lace work but can also be used for novelty, rubber or mesh fabrics. It is available in all standard gauges with a knitting width of 36"; however, the company will build to any customer size requirements.

Standard equipment consists of a stitch comb or sinker bar, chopper bar attachment, and a split drum for lace work. Easily removable split box cams make changing from single to double needle bar work a simple matter. Feed rollers are easily adjustable from a high position at the top of the trick plate to a low position underneath the trick plate for double needle bar work. Rachet gears and eccentrics are employed for control of fabric quality. The guide bars are equipped with all-stainless steel thread reeds.

Another important feature is the use of a standard 6" pattern drum with standard links. After the pattern has been established on this sampler machine the links can be transferred



Queens sampler Raschel machine.

Cut Maintenance Costs,

with these scientifically

Dayton Thorobred Drop Box Pickers, with "3-Point Density Control," absorb loom shocks, protect loom parts and increase loom efficiency.

Test Dayton Pickers on *your* looms. You'll be amazed by the outstanding performance made possible by "3-Point Density Control."

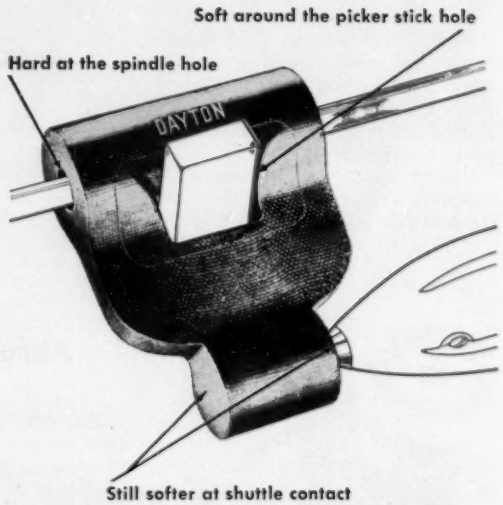
This exclusive feature gives the composition of every Dayton Picker 3 different densities at the 3 points of contact . . . right where they're needed!

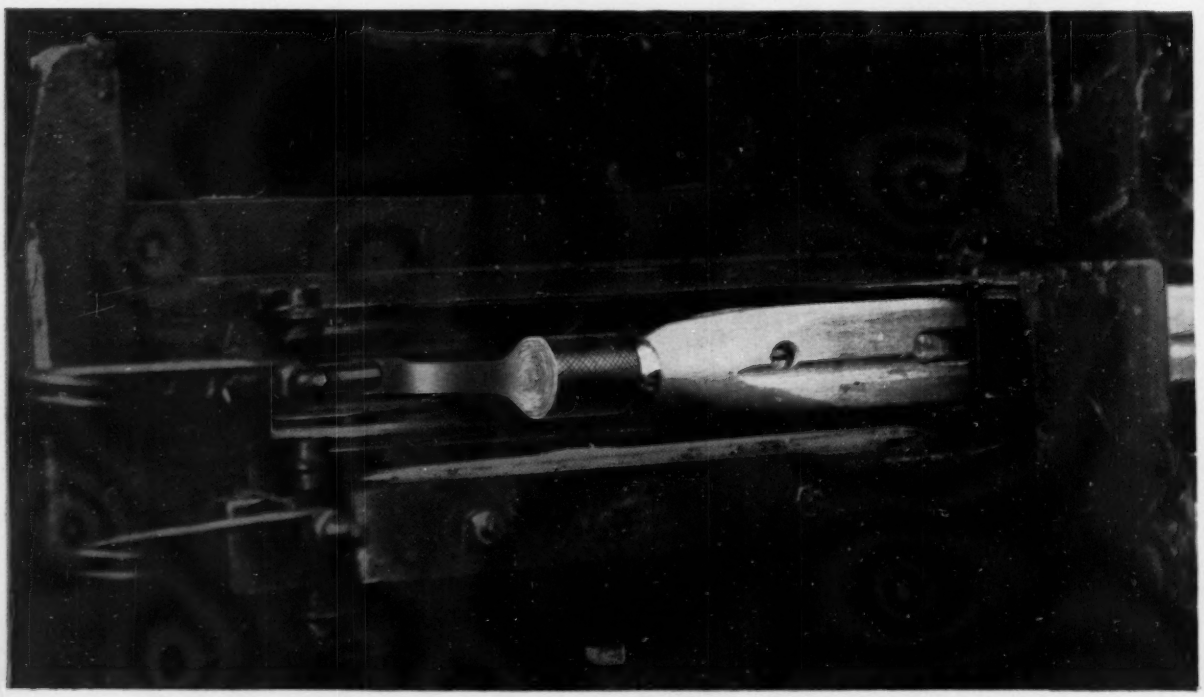
In the spindle hole of the Dayton Picker an integral, extra-hard composition bearing surface prevents wear . . . requires no lubrication.

The picker stick hole is provided with a softer composition to absorb the impacts of the picker stick.

At the picker shuttle contact point a still softer composition eliminates shuttle point loosening and helps assure a perfect throw every time.

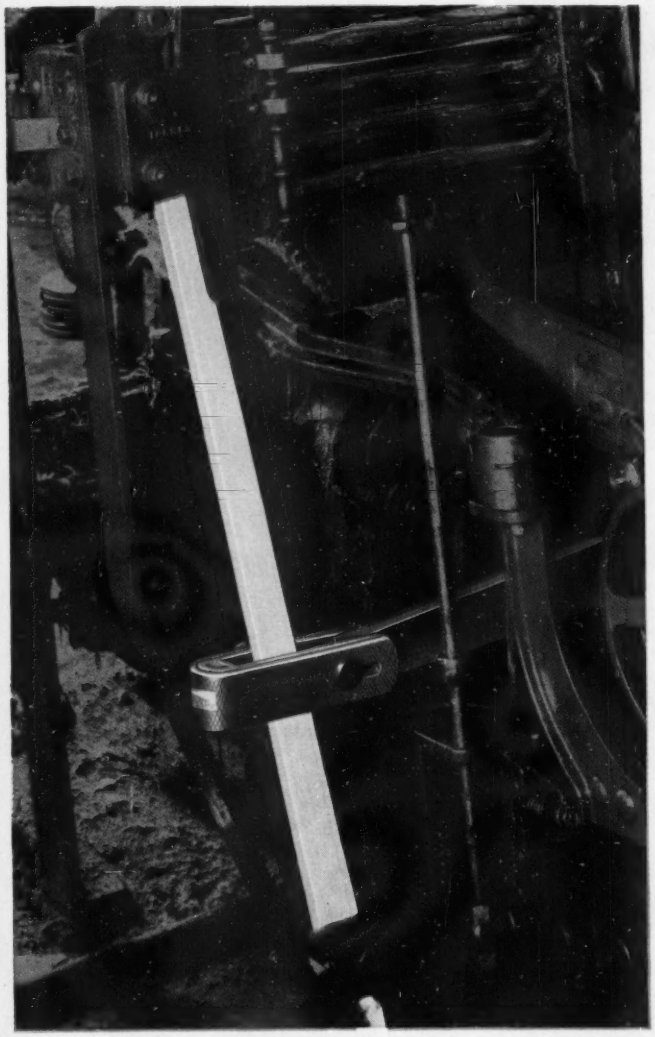
Equip your looms with Daytons . . . available in reversible and non-reversible types. See your loom man today or mail the coupon for details.





Improve Loom Output

designed Dayton Products!

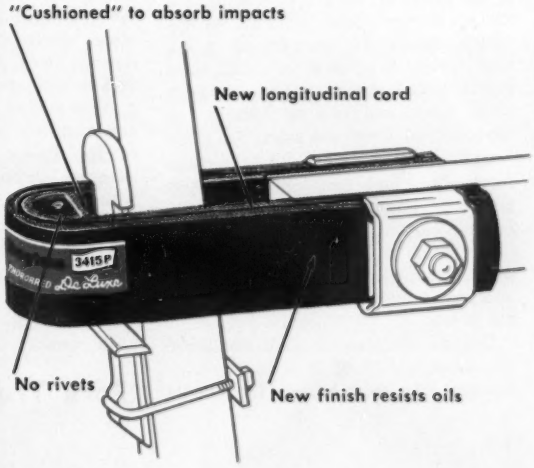


Dayton Thorobred DeLuxe Lug Straps are built in one piece with the cushion and strength for efficient, economical service.

Tests prove Dayton Thorobred DeLuxe Straps give twice the service life because they are scientifically engineered and built in *only* one piece.

A built-in molded plug absorbs the terrific thrusts of the picker stick . . . protects expensive loom parts. A special longitudinal cord in the center of Dayton Lug Straps provides *extra* strength . . . takes millions of picker stick blows without "fatigue." Too, Daytons work perfectly in any weather — are not affected by temperature or humidity.

Daytons are available for all type looms. Contact your loom supply jobber or mail the coupon for all the facts.



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Dayton Rubber 50 YEARS OF PROGRESS

Dayco and Dayton Thorobred Textile Products for Better Spinning and Weaving

Dayton Rubber Co., Textile Division, 401 S. C. National Bank Bldg., Greenville, S. C.

Dayton Rubber Company
Textile Division, Dept. 363
401 S. Carolina National Bank Bldg., Greenville, S. C.
Send me additional information on cost-cutting Dayton Thorobred Drop Box Pickers and Dayton Thorobred DeLuxe Lug Straps.

*Name*_____

*Mill Name*_____

*Address*_____

*City*_____ *Zone*_____ *State*_____

to a large production machine. Needles and guides are also standard. Thread tension brackets are located at either end of the machine, permitting a varied arrangement of tension wires.

The machine can accommodate 10 to 12 heavy duty warp beams which are run in ball bearings and are supplied with 1" pins, flanges, and tension pulleys. Raising or lowering of the warp beams is accomplished through an adjustable warp beam rack.

The power mechanism consists of 110/220-volt, ½ hp motor and a variable speed drive which allows the machine to run at speeds comparable to any modern make.

In addition to being used for sample work the machine is also capable of producing narrow fabrics or edgings on a production basis.

The Queens indirect pin type warping machine, which is built to a 60" width, is of special interest to the Cidega and Eppler trade, but this too can be made to customer specifications. This machine has also been designed with the 12-bar Barfuss Raschel machine GR54 in mind.

This machine is sturdily constructed with the eight cross pieces being made of hard maple and with three heavy duty spider wheels which allows the warping of nylon and rubber. It is ideal for small warp knitters because it takes up very little room and can be handled or moved around by one man.

The machine features a tension mechanism and counter clock. Any standard diameter 12" to 14" beams can be warped.

A 110/220-volt, ½ hp motor is supplied, completely wired, so that the operator only has to plug it in to begin work.

Queens Machine Co., 262-284 Starr St., Brooklyn 37, N. Y.

More Data? Write ◂ or use card, p 171; list C-110

Bleaching Stabilizer Improves Quality, Reduces Costs

Improved quality of work and lower processing costs are results to be derived by use of Sunolox in alkaline peroxide solutions for bleaching cellulosic materials. This new stabilizer is a water soluble, dry inorganic product.

Sunolox demonstrates outstanding bleaching action, eliminates serious dyeing difficulties, and provides substantial savings in time and water required in rinsing. It is effective in combination bleaching with chlorine and peroxide where ordinary stabilizers cannot be used. The product leaves no insoluble residues on yarns or fabrics. Finished work retains its natural softness and original colors.

Sunolox may be used in package machines, kiers, dye becks, pads, jigs, and string dyeing machines as well as in rope and open width continuous bleaching ranges. It is harmless to the skin and delicate fibers and is noncorrosive.

Pennsylvania Salt Mfg. Co., 1000 Widener Bldg., Philadelphia 7, Pa.

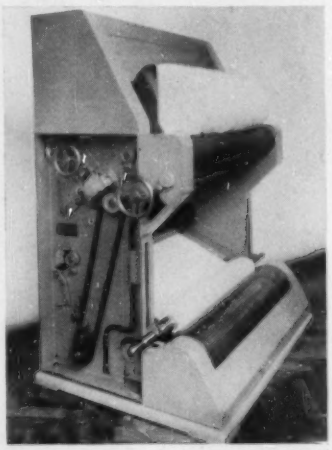
More Data? Write ◂ or use card, p 171; list C-111

Instrument Shows Lap Variation Over Full Width and Length; Permits Visual Inspection

The Ingolstadt Lap Tester Type WPG2 provides on a chart the variations in weight summed up over the whole width of laps up to 45 inches wide. In addition, an illuminated screen permits visual testing of the lap so that it is possible to (1) determine the location of periodic defects, (2) rate the degree of disintegration of the lap, and (3) test the degree of cleaning. Furthermore, after a lap has been tested it can be immediately placed on a card for further processing.

The lap to be tested is placed on a pair of driven rollers at the top and back of the machine (see photo). As it is unrolled, the sheet of stock slides down past a measuring condenser, over the illuminated screen, and is then turned back by another pair of rollers and re-rolled on a lap rod running under pressure on top of the lower pair of rollers, in a manner similar to that by which it was made on the picker to begin with.

The variations in fiber quantities passing the condenser slot cause an alteration of the electric capacity



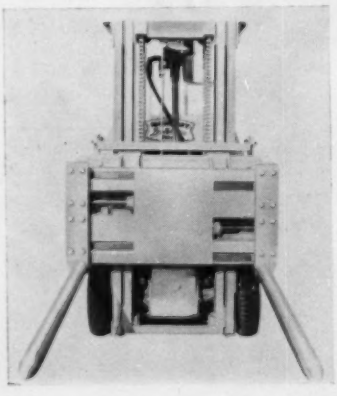
field. These variations are amplified in a high frequency instrument and transmitted to the diagram recorder, both of these instruments being housed in a casing on top and at the front of the machine.

Control lights show when the lap tester is ready for use.

Stellite American Corp., 60 East 42nd St., New York 17, N. Y.

More Data? Write ◂ or use card, p 171; list C-112

Fork Truck Attachment Doesn't Damage Cloth



A new type squeeze clamp attachment for Mobilift stand-up and sit-down fork lift trucks is designed for handling rolls of textile materials that are stacked flat in a trailer or in a warehouse, and can also be used to carry other similar types of materials. As rolls of textile material are usually wrapped in burlap covering which is very easily snagged, the squeeze part of the clamp is seldom used to pick up material, but instead is generally used to adjust the forks to the size of the roll being picked up. Therefore, the roll is actually cradled between the round forks.

Located at the bottom of the clamp,

these 33" long round forks which are egg-shaped on the ends can also be used to pick up square bales or rolls by the squeeze method and can also be used as regular forks.

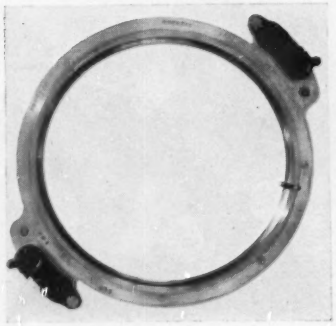
Lamson Mobilift Corp., Portland, Ore.

More Data? Write or use card, p 171; list C-113

Higher Spinning and Twisting Speeds Possible with Conical Ring

A new conical ring is designed to permit higher spindle speeds in spinning and twisting cotton, wool, worsted, rayon, nylon, and other synthetic fibers and blends. It is conical in design and is engineered to provide longer life during high speed operation.

Wear of the traveler is reduced by riding on a film of specially formulated oil carried to all contact surfaces by capillaries. The special design of the travelers contributes to the effective operation of the ring. As speed is increased during operation, the ring and traveler work together in equalizing the tensions of the yarn and the centrifugal force developed in rotation.



These rings and holders complete are available in all diameters to fit all standard frames.

Herr Mfg. Co., Inc., 318 Franklin St., Buffalo 2, N. Y.

More Data? Write or use card, p 171; list C-114

Stretch Hose Package Eliminates Boarding and Pairing

A new package especially suitable for the marketing of stretch hosiery is called the "Berrypak." It presents two hose on one semi-rigid insert, forming a package which has many advantages from the standpoint of the mill, merchant, and the customer.

For the mill this package eliminates final boarding, pairing, and allows rigid inspection; it eliminates finishing and handling of odds, because each sock may be pulled to uniform length on each insert, forming a package showing the hose as they look when worn.

The merchant gets a package which the customer may see, feel, handle without damage, and solves pilferage problems.

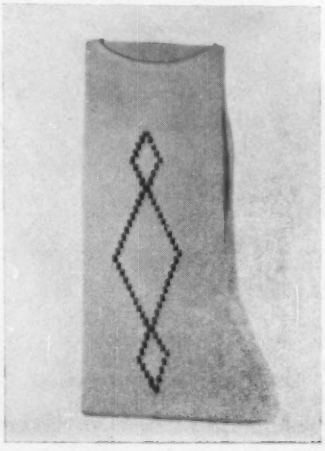
Not only can customers see and feel the hose, but they know how they will look when worn.

The machine for packaging stretch hosiery by this method, called the "Berrypaker," permits detailed pairing and packaging of 125 dozen in eight hours.

The plant operation best designed to use all the advantages of "Berrypak" is as follows:

Goods are pre-boarded to prevent dye creases, and after being dyed they are tumbled and taken to the "Berrypaker" where they are final boarded, paired, shaded, inspected, and packaged.

How stretch socks processed on Berrypaker look to customer: Below, folded for display; right, opened out for inspection.



A cardboard insert is placed in the machine and the first sock pulled on. If there should be holes or differences in shading, the sock is then removed and processed later.

After the first sock has been put on the machine, the pedal is operated, moving the heel positions inward, causing the fabric to become slightly tensioned to the entire shape of the cardboard insert. When the cardboard and first sock are removed from the packaging machine, the fabric does not move on the insert, allowing a perfectly positioned hose. Then the insert carrying the first sock is placed back in the machine and the operation repeated, positioning the second sock in the same manner.

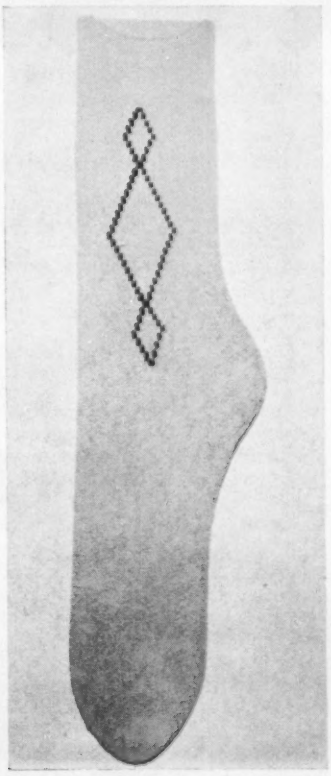
The front board member of the package machine contains a long open space which allows the operator to shade the second sock as it is pulled over the first.

With both socks on one insert, mass handling in connection with the application of transfers, riders, bands, boxing, and shipping is greatly facilitated.

Interested mills may be licensed to acquire and use the machine and to make, use, and sell the new package.

Berry Brothers Corp., 2506 Ashe St., Durham, N. C.

More Data? Write or use card, p 171; list C-115



NU-FILM

Having weaving troubles? With your present miracle fibers? Or with new complicated blends or styles?

You can make it easy for yourself by using a National 'miracle warp size.'

MIRACLE

FOR MIRACLE FIBERS

WARP SIZE

NU-FILM has more affinity for today's complicated blends than any other size. It'll produce a smooth, tough film on most miracle fiber blends.

You'll find NU-FILM easy to remove. Its soluble groups speed thorough rinsability—usually with only soap and water.

We'll welcome an opportunity to work with you.
National Starch Products Inc., 270 Madison Avenue, New York 16, N. Y.

National STARCH PRODUCTS

Please Send Us!

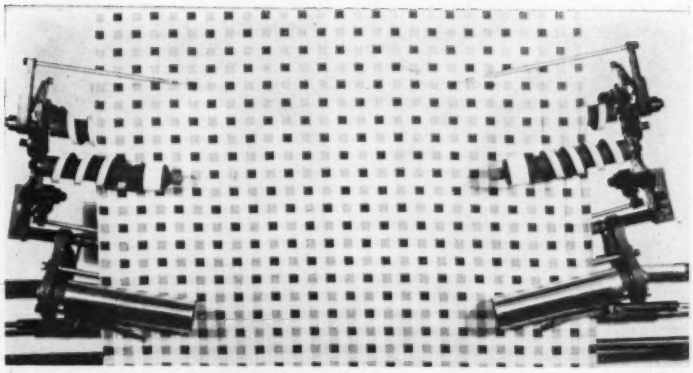
- ☐ Nu-Film _____ lbs. for trial run
- ☐ Nu-Film laboratory sample
- ☐ Nu-Film Technical data
- ☐ National representative to arrange for a Nu-Film trial

Name _____ Title _____

Company _____

Address _____

City _____ Zone ____ State _____



Mill photo of the "Taker-Outer" device.

Improved Equipment for Turning Back Doubled Selvages

Improvements in the design of the "Taker-Outer" device for turning back doubled selvages are:

(1) Flexible knuckles permit adjusting the spirals of the machine to the angle best suited to the work to be done.

(2) A screw thread and clover leaf handle permits the rubber or stainless steel spirals which "walk" out the doubled selvages to be set in the best relation to each other for "nipping" the cloth and pulling it to its full width. One of these spirals fits on each side of the cloth so that doubled selvages on either side are taken out.

Adjustment can be made while the machine is in operation, permitting very accurate setting of the spirals.

These improvements have been incorporated in both motor and cloth operated models of the Taker-Outers.

Guider, Roll and Service Co., P. O. Box 3747, Peninsula Sta., Daytona Beach, Fla.

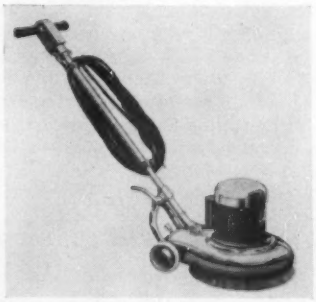
More Data? Write ◆ or use card, p 171; list C-116

Versatile Floor Machine Offers Minimum Operator Fatigue

Three new motor-over brush type floor machines for scrubbing and polishing are designed for continuous service, hour after hour, because they are perfectly balanced for minimum operator fatigue. Handle is adjustable. A foot clamp releases the handle, which can be locked in any position from vertical for storing, down to the horizontal position for low clearance when working under desks and beds, around machines, etc.

A slight reverse twist of the handle turns on the operating switch and when handle is released, the machine stops automatically. The wheels are retractable by a slight push on a foot pedal.

Model 1600 has a 16" diameter brush with a speed of 180 rpm; Model 1900 has 19" diameter brush; Model 1300 has 13" diameter brush. All models accommodate any type brush—scrub, polish, steel wire or steel wool.



S. C. Lawlor Co., 124 N. Aberdeen St., Chicago 7, Ill.

More Data? Write ◆ or use card, p 171; list C-117

Hose Couplings Feature One-Hand Operation

A complete line of quick connect and disconnect hose couplings features one-hand operation without turning or twisting to lock—just push in.

Called "Pushomatic," they automatically lock, making a high pressure leakproof connection. An integral check valve automatically shuts off line or hose pressure when disconnected, prevents danger of backlash or whipping.

Greater flow, full 360-degree swivel action, and extremely small diameter of these couplings make neater and lighter hose connections. Application up to 10,000 psi.

The 1A Series was designed specifically for instrumentation, manifold, and panel installation where space is limited. The 2A Series was especially designed for pneumatic tools, air, water, and hydraulic supply lines.

Breco Division of Perfecting Service Co., 332 Atando Avenue, Charlotte 6, N. C.

More Data? Write ◆ or use card, p 171; list C-118

New Recorder Charts Production, Machine Speed, Starts, Stops

A new rate recorder makes permanent records of speed or production rates as well as totalizing the production units on an integral counter.

Thoroughly versatile in its applications throughout industry, the Tetco Type R-500 Recorder gives a complete log of speed, starts, and stops as related to time of occurrence.

The recorder chart may be calibrated in any function of speed, such as revolutions per minute, feet per minute, miles per hour, pieces or packages per minute or per hour, etc. This unique chart is wax-coated and inscribed with a carboloy stylus, eliminating the trouble and expense of servicing.

Controlled by a rotary contactor and a specially-designed electric clock, the recorder gives immediate visual information for control or maintenance purposes, and provides a recorded basis for analysis of production, breakdown causes, speed tolerances, piecework payroll, and numerous other factors contributing

to operating efficiency.

A chart coding device, available as a special feature on the standard recorders, can be used to record causes of breakdowns or stoppages, etc.

The Electric Tachometer Corp., 2218 Vine St., Philadelphia 3, Pa.

More Data? Write or use card, p 171; list C-119

New Dye Solvent

Xynosolve, a new dye solvent, has many valuable functions in textile dyeing and printing.

Some of the advantages in using this product are as follows: increases penetration; improves dispersion of pigmented particles; increases color yield; gives smoother prints even on difficult fibers; improves solubility of dyes of low solubility; improves working properties of print pastes; improves the results in aging and steaming, and economies of all types of humectants.

Onyx Oil & Chemical Co., Jersey City, N. J.

More Data? Write or use card, p 171; list C-120

New Burling Irons and Scissors for Cloth Rooms

The Gingher #4953—4" burling iron with side cutter for cloth rooms and mending departments is available in the regular polished finish or in a chrome plated finish.

The #4964—4¼" burling irons were developed for heavy work. The #3862—4¼" cloth picker with removable needle is also a durable tool, but it is suitable for fine goods as well as heavy fabrics. For extremely heavy fabric is a cloth picker with a heavy ⅛" diameter needle.

The #1206C—3½" chrome plated pocket scissors are equipped with double rounded points to prevent any possible damage to fine fabrics or in cutting or scratching the operators while using same. These scissors are available in both the 3½" and 4" sizes.

The #518C—4" chrome plated coner's scissors are equipped with ⅛" blades for gauging the size of the tails to be cut on any knots made in the coning operation.

The #841B—5½" special trimmers with one blunt blade and one sharp and having a serrated edge on one of the blades were developed especially for use in mills handling the electric blanket cloth; and these scissors will cut this fabric satisfactorily without disturbing the wire woven into the blankets.

The #450½B—7" straight trimmers with curved blades were developed especially for carpet mills and also for the stores handling carpets. These scissors are used for trimming the top surface of the finished carpets.

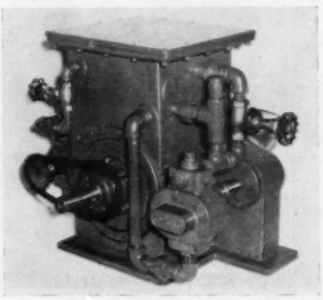
Clair H. Gingher & Son, P. O. Box 3014, Greensboro, N. C.

More Data? Write or use card, p 171; list C-121

Automatic Hydraulic Constant Tension Winder

The new Temco constant tension hydraulic winder guarantees a smooth, even, constant tension, or tensionless, wind "wherever winding is involved."

A highly versatile, self-contained unit, it can wind any thickness, width, weight or type of material at a wide



range of linear speeds, tensions, and roll build-ups.

The winder is easy to install—simply align it with any process machine, connect it to the power supply, and it is ready to wind. Once the desired tension has been set on the dial, no further attention is required from the operator, regardless of the number of rolls wound.

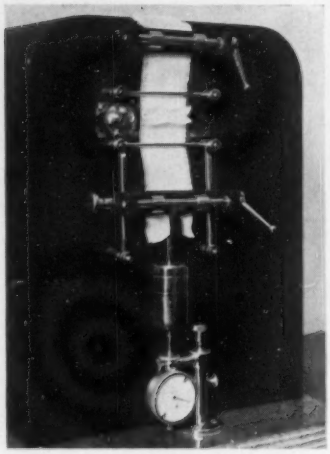
Temco Winders, Inc., Providence, R. I.

More Data? Write or use card, p 171; list C-122

Seam Slippage Tester

For quality control and research work a seam slippage tester called the "Scorrimetro BL" is available.

Dynamic tests are provided so that



Machine tests fabric seams for slippage (Stellite American).

conditions of wear to which clothing is subjected are simulated; thus, it can be determined if a particular fabric will give satisfactory results.

The instrument controls the slippage of the ends and the picks in the fabric along the seam and indicates if the fabric will burst along the seam.

Test is performed on the warp and the filling two ways: First on a strip of cloth without a seam; second, on a strip of the same cloth cut and sewn with a seam like the one that will be used by the fabric converter.

Slippage of the ends or the picks is determined by the difference between the elongation of the cloth without seam and the elongation of the cloth with the seam.

Stellite American Corp., 60 East 42nd St., New York 17, N. Y.

More Data? Write or use card, p 171; list C-123

Versatile Emulsion Yields Durable, Stiff Finish

A new polyvinyl acetate emulsion, Harto-Resin PC, is an exceedingly versatile emulsion giving a durable finish which requires no curing. The films are glass-clear, colorless, and provide maximum stiffness.

The product is used as a durable finish for nylon hosiery, for finishing ribbon fabric, as a durable anti-curl for nylon tricot, as a crisp finish for cotton and rayon, and, in general, as a durable clear, stiff finish for all fabrics.

Hart Products Corp., 1440 Broadway, New York 18, N. Y.

More Data? Write or use card, p 171; list C-124

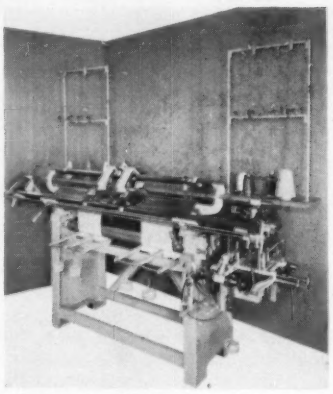
New Flat Jacquard Knitting Machine

The lower height of the new Queens Model CJ flat Jacquard knitting machine not only adds a modernistic appearance but also permits simplicity in adjustments. The heavy rigidity of the body and base reduces vibration to a minimum, thereby giving more smoothness of operation.

The employment of a new type of carriage makes possible any combination of high and low butt needle and jack selections by simply changing the easily replaceable lift cams. An improved carriage mounting with opposed roller bearings eliminates improper carriage travel which in turn reduces wear on the machine and also prevents needle and jack breakage.

The machine is of the single lock type and is equipped on the rear bed with Jacquard and high and low butt needles and jacks. The front bed has high and low butt needles and push jacks.

All yarn carrier bars are inclined, permitting free access to the needle bars and feeders. The machine is available with four or six yarn carrier bars which allow up to six different yarns to be used with standard equipment. Special combination yarn boxes are optional equipment for use



of additional colors.

Patented Jacquard blades and snappers which are of the same construction as those used on the Queens Links & Links are employed. Any design is easily set-up by the use of removable plugs.

Any action of the machine can be controlled while the carriage is on either end.

The machine comes equipped with an individual motor drive with an adjustable speed pulley.

Queens Machine Co., 262-284 Starr St., Brooklyn 37, N. Y.

More Data? Write ◂ or use card, p 171; list C-125

Fabric Measuring, Examining Machine Offers Fastest and Slowest Speeds

The "Measure-Matic" is a new all purpose fabric measuring, examining, and rewinding machine which permits detailed inspection of intricate patterns as well as quickest re-rolling of piece goods.

The machine provides a fast, accurate means of checking materials for damages, for accurate yardages, for double folding of open goods, taking inventory, splitting bolts, and packaging of the fabrics. It works from tube to tube, board to board, tube to board, and flat fold to tube or board.

Among the new features of the machine which assure more efficient operation, are: double reverse, permitting goods to be loaded face in or face out, and to be re-rolled with the proper face out; dual speed control, enabling the operator to shift from an extremely low speed range to extra high speed in a jiffy; new loading ease, whereby loading arms

are shifted in either direction at a touch, for loading and adjusting to width, and lock firmly when running goods; swing board, which is the examining board that swings back when not in use, as for double folding or merely re-rolling . . . no need to lift overhead or remove from machine.

The machine is available in standard widths of 48, 60, 72, 84, 96 and 108 inches, with each unit handling all widths of material up to its maximum. Double fold attachments are also available at extra cost. Counters, which are now easier to read, can be had to register in yards and eighths, or in meters and tenths.

Cutting Room Appliances Corp., 45 West 25th St., New York 10, N. Y.

More Data? Write ◂ or use card, p 171; list C-126

Slitter Utilizes Differential Principle of Rewinding

The Model 635 Film Slitter is basically a two-spindle center drive, differential rewind slitter. It is used principally for narrow width slitting where positive roll separation and uniform roll density are required. Products which are being slit on this machine include mylar, acetate, cellophane, Teflon, vinyl, impregnated glass cloth, glassine and aluminum foil laminates.

Major design emphasis was devoted to the differential principle of rewinding wherein the rewind cores are spaced on the mandrel with steel spacer rings keyed to the rewind mandrel. The rewind mandrels are positively driven at a higher speed than the normal winding speed of the cores. The cores, therefore, slip on the mandrel. In order to produce the necessary winding torque the stack of cores and spacers is squeezed endwise from one end of the rewind mandrel. This endwise force, formerly done by spring collars, is now done by regulated air pressure with a minimum of operator skill.

The differential winding principle tends to distribute the total web pull equally on each roll being rewound. Thus if the material thickness varies across the web, the thinner sections will wind to a smaller diameter but will have the same density as the thicker caliper, larger diameter rolls on the same rewind mandrel.

The slitting section of the Model 635 is designed to permit the interchange of the following slitting mechanisms: (a) shear cut; (b) razor blade cutting in grooved roll; (c) razor blade slitting in air; (d) score

cut—suitable for wide variety of materials, including woven fabrics.

Other design features include an air regulated unwind brake, web guide attachments, trim blowers, footage counters, and step drive for 1" and 3" diameter rewind mandrels.

John Dusenbery Co., Inc., 271 Grove Ave., Verona, N. J.

More Data? Write ◆ or use card, p 171; list C-127

Product Improves Nylon Knit Fabric Absorbency

A product specifically formulated to increase the absorbency of nylon knit hose or fabric—particularly those knit materials made from stretch yarns—has been announced.

Named "Emkasorb," the chemical is a combination leveling agent, softener, and rewetting agent. It is readily soluble in warm water, and is ideal either as a dye assistant and softener, or in the final rinse bath after dyeing. 3% on the weight of hose gives instantaneous moisture absorption after drying.

This product is highly resistant to acids. When used with acid colors, it contributes materially to level dyeing. It is also resistant to after-treatment with tannic acid and tartar emetic.

Emkay Chemical Co., 319-325 Second Street, Elizabeth, N. J.

More Data? Write ◆ or use card, p 171; list C-128

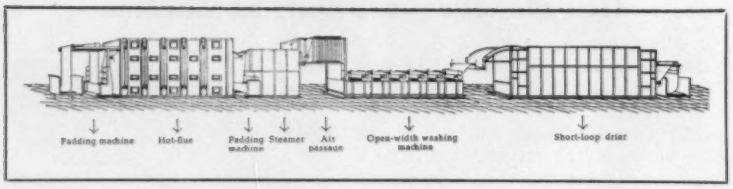
Strength Tester

A throttle-regulated 100-watt drive is employed in the Tensile Strength Tester Motoperm. The requirements of forward and backward travel and rapid stoppage at the end positions are made possible by use of a rotary switch whose two end positions are arranged for forward and backward travel.

The electromagnetically controlled stretch measuring apparatus is new; it can be perfectly relied upon to switch off at break and therefore gives very accurate stretch values. This feature is particularly valuable when testing fine yarns. Stretch of sample is read on the stretch dial mounted above the tensile strength dial.

Charles Frank Inc., Weinheim-Birkenau, Germany.

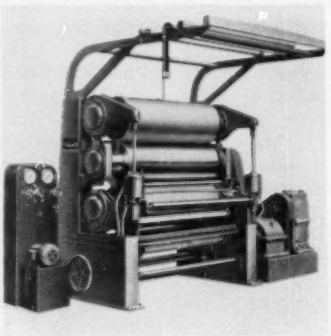
More Data? Write ◆ or use card, p 171; list C-129



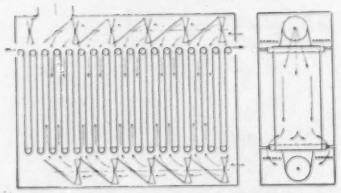
Haas continuous dyeing range for vat colors.

Continuous Dyeing Range Also Practical for Small Batches

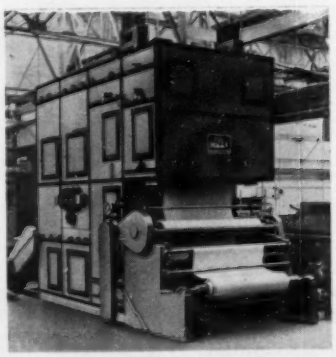
All of the components of a continuous dyeing range now available—i.e., padders, dryers, washers, etc.—are conventional individual machines and thus can be used individually for small scale or batch dyeing operations.



Three-roll padding mangle.



How air circulates through the hot-flue dryer.



"Ultra-Rapid" steamer.

Consisting of a padding mangle, hot-flue dryer, a second padding mangle, steamer, air passage, open-width washer, and short loop dryer, the range can be used for applying vat, naphthol, Indigisol, direct, and sulfur dyestuffs. (See sketch at top of page.)

The three-roll padding mangle at the entering end of the range hydraulically exerts pressures up to 10 tons on the fabric so that deep penetration of the dyestuff pigment into the innermost layers of the fabric is achieved. The machine has a small-volume trough so that the liquor has to be replenished continuously, thus insuring a constant concentration of the liquor. An automatic feed maintains the liquor at a constant level.

How the air circulates in the hot-flue dryer through which the impregnated cloth passes after it leaves the first padder is shown in an accompanying sketch. This method of air circulation results not only in high production but also perfect evenness of pigment dispersion throughout the length and width of the fabric.

The second padding mangle, known as the developing pad, is equipped with a V-shaped trough and is connected with a steamer.

This "Ultra-Rapid" steamer is divided into two compartments. In the first the fabric is subjected to a sudden application of heat, effected by intense infra-red radiation on both sides of the cloth. This radiation brings about an almost instantaneous dissolving and reduction of the dyestuff. In the second compartment, the dyestuff, which has been dissolved by reduction, is fixed, this operation being carried out with exclusion of atmospheric oxygen. In both compartments, the cloth is passed in vertical layers over driven rollers which are designed to prevent creasing of the fabric. Fixation is accomplished in a few seconds.

The short loop dryer installed in

the range after the washer is preceded by a hydrosuction machine. (More complete description on page 158.) Here delicate fabrics are dried without creasing, and shrunk at the same time. This type of dryer offers flexibility because it can be put to a greater variety of uses when different types of fabrics are to be processed.

Maschinenfabrik Friedrich Haas GmbH, Postschliessfach 25, Remscheid-Lennep, West Germany.

More Data? Write or use card, p 171; list C-130

Equipment Briefs

A new **variable speed drive** is designed to give infinitely variable speed within a 2 to 1 speed range ratio for 1 to 5 hp drives. Features are: Both flanges move simultaneously by a single adjusting screw; positive locking; higher efficiency; less shaft overhang; no lubrication.

T. B. Wood's Sons Co., Chambersburg, Pa.

More Data? Write or use card, p 171; list C-201

For use wherever hot water is required and steam and water are available is a new **steam and water mixer** which utilizes full heat energy by injecting steam directly into the water. Designated the No. 1360 series, it may be used for supplying hot or warm water to wash stands and gang showers, etc. Safety feature shuts down mixer in event of failure of water supply; operation is automatically resumed when interference is corrected.

Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Box 400, Knoxville, Tenn.

More Data? Write or use card, p 171; list C-202

A **400-ampere molded case air circuit breaker** in the new KL frame size is highly compact and provides automatic circuit protection for enclosures, switchboards, and panelboards. It employs both thermal and adjustable magnetic tripping for overload and short circuit protection. Features include De-ion arc extinction, silver alloy butt contacts with quick-make, quick-break action, and interchangeable trip units.

Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa.

More Data? Write or use card, p 171; list C-203

Now on the market is a **portable belt conveyor,** with adjustable wheel support on the drive end and a pad support on the other end, which can be used to elevate or lower boxes, cartons, sacks or other miscellaneous commodities from dock to truck or from floor to stack. Also, it can be integrated with a system of portable roller or wheel conveyor to meet the specific need of the installation. Steel or aluminum construction available.

Standard Conveyor Co., North St. Paul 9, Minn.

More Data? Write or use card, p 171; list C-204

An office-type **water cooler also dispenses hot water** at just the right temperature for making instant coffee and other hot beverages. Available in both pressure and bottle

types, it is called the Oasis Hot 'N Cold Water Cooler. Reduces time employees take away from work to get hot drinks.

Ebco Mfg. Co., Columbus, Ohio.

More Data? Write or use card, p 171; list C-205

Greater accuracy is obtainable with the redesigned Freas **conditioning ovens** used in moisture determination tests of textiles, etc. Moisture determinations from 30% to 0.1% can be made. Plate glass inner door makes possible observation of samples during conditioning in the Model 201 oven which offers mechanical convection and selective suspension and permits 8 samples to be treated simultaneously and weighed separately. Model 200 offers gravity convection, non-selective suspension, and permits one sample to be heated and weighed continuously.

Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.

More Data? Write or use card, p 171; list C-206

A new general purpose **ink for industrial recording instruments** was especially formulated for use with Foxboro pens and Humitex charts to produce the sharpest possible record of a process variable. For convenience in inking the pen, this Type 1500 ink is furnished in a one-ounce polyethylene squeeze bottle with a plastic capillary tube and filter assembly which permits the user to pinpoint a precise quantity of ink on the pen without dripping.

The Foxboro Co., Foxboro, Mass.

More Data? Write or use card, p 171; list C-207

A new **instrument recording pen** saves operating dollars by speeding interpretation and relieving skilled personnel of monotonous duties. This featherweight, stainless steel capillary pen is fed from a clear, hermetically-sealed, plastic ink sack containing over a year's supply. Capillary action maintains continuous flow to a precision ground point which traces a sharp, opaque, quick-drying record. "Poisoning" of intersecting records is practically eliminated, thus perfecting chart legibility.

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

More Data? Write or use card, p 171; list C-208

LockPrime, a **corrosion resistant liquid primer** for new or corroded steel surfaces, offers excellent resistance to under-cutting by corrosion when cover coats are mechanically damaged. It is equally effective in acidic and organic atmospheres. Applied by brush or roller directly from can.

Pennsylvania Salt Mfg. Co., 1000 Widener Bldg., Philadelphia 7, Pa.

More Data? Write or use card, p 171; list C-209

National Blue 3BVS Salt is used to produce on cotton or viscose rayon a range of pleasing shades of excellent light fastness varying from green to reddish blue with the various National Naphthols. May be applied on continuous padding range, in pressure package dyeing machines, and in open tubs; also by printing processes.

National Aniline Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

More Data? Write or use card, p 171; list C-210

SAVE on SLASHER REPAIRS and OVERHAULING

Call on a SLASHER Specialist

Established in 1868, the West Point Foundry & Machine Co. specializes in the manufacture of slasher room machinery and equipment, slasher repair parts, and in slasher modernization and overhauling.

EXPERIENCED SUPERVISION

Our skilled erectors can speed your slasher overhauling and repair jobs and reduce costly down-time to a minimum.

LARGE STOCK OF PARTS

West Point Foundry & Machine Co. maintains one of the largest stocks of slasher repair parts in the South. Most needed replacements for worn parts can be quickly supplied from stock without delay.

If you are planning slasher room repairs or overhauling and require repair parts or experienced assistance in overhauling, call on West Point Foundry and Machine Co.. . .specialist in slashers.

Manufacturers of:

A COMPLETE LINE OF SLASHERS
SPECIAL TEXTILE MACHINERY AND REPAIR PARTS
SIZE BOXES, KETTLES AND PUMPS
BIG BEAM EQUIPMENT FOR LOOMS
LOOM BEAMS, BARRELS AND BEAM HEADS
CORDUROY CUTTING MACHINES AND BRUSHERS

WEST POINT FOUNDRY & MACHINE CO.

WEST POINT, GEORGIA

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3-1 Hardwood Flooring. Booklet entitled "Specialist in Manufacturing of Hard Maple Flooring for textile plants." For complete information, write Connor Lumber & Land Company, P. O. Box 810, Wausau, Wisconsin.

3-2 Guide to Fluorescent Luminaires. Catalog of fluorescent luminaires for commercial and industrial use concisely summarizes salient features of each type of luminaire. Write Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa.

3-3 "How To Operate A Lift Truck." Booklet gives information about the operation of a lift, truck, preventive maintenance, safety and basic materials handling. Write Hyster Company, Portland 8, Oregon.

3-4 "Agilon." Booklet describes the properties and applications of "Agilon" stretch yarn to the spinning, throwing and knitting industries, and retailers of knit goods. Write Deering Milliken Research Trust, Pendleton, South Carolina.

3-5 Pushomatic Quick Couplings. Booklet gives specifications, types and dimensions with full pictures and uses of Series 1A, 2A and 4A Couplings. For full information write Breco Manufacturing Co., Inc., 309 East Saratoga Street, Baltimore 2, Maryland.

3-6 Heat Exchanger. Bulletin describes how NIAGARA AERO HEAT EXCHANGER applies to controlled temperature cooling of water, oil and other liquids and gases in a wide variety of industries, with great cooling water savings. Write Niagara Blower Company, 405 Lexington Ave., New York 17, New York.

3-7 Overedging Machines. Illustrated bulletin gives design and performance features of the Union Special curved needle Class 39500 overedging machines. Gives operations such as high speed seaming, hemming, and overedging of knit goods and serging of clothing. Write Union Special Machine Co., 400 North Franklin Street, Chicago 10, Illinois.

3-8 Megohmmeter. Booklet gives applications, description and features, preventive maintenance and specifications of the Type 1862-B Megohmmeter for measuring high resistance. Write General Radio Company, Cambridge 39, Mass.

3-9 Valves. Catalog #51 provides complete descriptions and specifications on full line of Bronze and Iron Body Valves. Write The Fairbanks Company, 393 Lafayette St., New York 3, N. Y.

3-10 "What's New In Textile Drying." Bulletin describes Hot Air Slasher Drying, Tenter Dryers, Pre-Dryers, Loop Dryers, special drying and drying for the carpet industry with features and uses together with illustrations. Write J. O. Ross Engineering Corp., 444 Madison Ave., New York 22, N. Y.

3-11 Power-Transmission Equipment. Folder briefly describes textile products including Wedgebelt Drives, Shaft-King, Speed Reduction Drives, Adjustable Speed Sheaves, Steel Split Pulleys, Conveyor Pulleys and other products. Write American Pulley Company, 4200 Wissahickon Avenue, Philadelphia 29, Pa.

3-12 Twisting Machinery. Bulletin gives outstanding features, specifications facts and useful information on Novelty Yarn Twisters for Cotton, Silk, Worsted and Rayon Yarns. Write Collins Brothers Machine Company, 647 Roosevelt Ave., Pawtucket, Rhode Island.

3-13 Catalyst AC-6. Booklet describes how Catalyst AC-6 steps up curing efficiency as much as 25%. Free eight-ounce bottle upon request. For further information write Monsanto Chemical Company, Plastic Division, Dept. TI-3, Springfield 2, Mass.

3-14 Penford Finishing Gums. Booklet by Penick & Ford gives complete data, including physical properties and results which may be expected on Penford gums. Write Penick & Ford, Ltd., 420 Lexington Ave., New York 17, N. Y.

3-15. "Suntrol Glass Block for Reduction of Glare and Heat." Booklet shows in detail the physical performance of the new glass block, illustrating the principle of Suntrol—a pale green diffusing screen that helps to reduce the intensity of glare and heat. Write Pittsburgh Corning Corporation, 1 Gateway Center, Pittsburgh 22, Pa.

3-16 The Story of Starches. Semi-technical booklet tells the story of starches and information on how they are produced, the creation of new specialty starches, the unique "man-made" starch derivatives, and the handling of starches. Write National Starch Products, Inc., 270 Madison Avenue, New York 16, New York.

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17. A FAIR DAY'S PAY AND IN RETURN A FAIR DAY'S WORK—8-page booklet outlining the services offered to industry for the proper utilization of labor, material and equipment, and the resulting advantages for both labor and management.—AMERICAN ASSOCIATED CONSULTANTS, INC., 250 Park Ave., New York, N. Y.

19. INDUSTRIAL BUILDING — A 32-page booklet entitled "U.S.S. 12, U.S.S. 17 Stainless Steel Walls and Roofs for Industrial Buildings," is now available for distribution. This publication illustrates the use of type 410 and type 430 Stainless Steel Sheets in the construction of industrial and semi-industrial buildings. — U. S. STEEL CO., 525 William Penn Pl., Pittsburgh 30, Pa.

22. THE WONALANCET WAY — Is the title of an editorial booklet published five times a year and deals with current problems which appear worthwhile at the time they are written. — WONALANCET COMPANY, 128 Burke St., Nashua, N. H.

100. MOTION CONTROL WITH SILENTBLOC. Brochure describes advantages of General Tire Company's Silentbloc method of protecting delicate instruments, reducing machine vibration, etc. Write The General Tire Co., Industrial Products, Div., Akron, Ohio.

PLANT & PLANT MAINTENANCE . . .

102. "TANK TALK"—Sixteen-page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

103. HUMIDIFICATION, EVAPORATIVE COOLING—Bulletins available displaying AMCO automatic self-cleaning atomizers, controls, and evaporative cooling equipment.—AMERICAN MOISTENING CO., 260 W. Exchange St., Providence, R. I.

105. CASTERS AND WHEELS — Catalog gives complete descriptions on full line of industrial casters and wheels. Features patented "LOCKWELD" Steel Casters Without A Kingpin" both Single and Double Ball Race.—THE FAIRBANKS CO., 393 Lafayette St., New York 3, N. Y.

106. FINNELL COMBINATION SCRUBBER-VAC—Illustrated literature gives complete specifications and describes various methods of combination-machine-scrubbing, including method recommended for cleaning oily floors. — FINNELL SYSTEM, INC., 1300 East St., Elkhart, Indiana.

108. MAPLE FLOORING—Booklet describing finishing of Northern Hard Maple Flooring—list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Pure Oil Bldg., 35 East Wacker Dr., Chicago 1, Ill.

110. UNBRAKO STANDARDS — Catalogue by Standard Pressed Steel Co. describes in pictures and text the company's line of Unbrako precision threaded fasteners. Several applications of each product are indicated in line drawings to suggest hundreds of others and to stimulate the imagination of design engineers.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

111. CERTIFIED CLIMATE AIRCHANGER SYSTEM—Bulletin describes Certified Climate Airchanger System as used with direct humidification for partial or complete air conditioning. — PARKS-CRAMER CO., Fitchburg, Mass.

113. COTTON MILL EQUIPMENT—This book traces pictorially the steps in processing raw cotton into finished cloth. It shows the equipment needed for all phases of production, as well as containing a "Useful Information" section on Power Factor Correction, Lighting, Circuit Protection, etc.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

117. CLEANING SYSTEMS — Booklet entitled "Certified Climate and Cleaning Systems" gives latest information on system. Products and uses fully discussed with two story layout of Certified Climate central station air conditioning system.—PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

127. SOLENOID VALVES—Bulletin "V" lists sizes from 1/2 inch to 3 inches; valves for normally open or closed service; stainless steel or Jenkins disc seats; three-way solenoid valves, etc.; typical installations.—THE JOHNSON CORP., Three Rivers, Mich.

129. AIR CONDITIONING AND HUMIDIFICATION — Catalog section 101 lists and briefly describes each item of the complete Bahnson line of equipment for textile mill air conditioning and humidity control. — THE BAHNSON COMPANY, Winston-Salem, N. C.

131. "AIR PROCESSING"—Set of three bulletins showing real meaning of the term, where it can be used, the requirements for a successful system, etc.—J. O. ROSS ENGINEERING CORP., 444 Madison Ave., New York 22, N. Y.

135. COLOR CONDITIONING — Booklet illustrated in color describes how Du Pont color conditioning puts color to work for you. Many ideas on safety brought out which color can aid. — E. I. DU PONT DE NEMOURS & CO., INC., Finishes Div., Wilmington 98, Delaware.

138. METAL CONVEYOR BELTS—Recent catalog describes and illustrates Ashworth's entire range of manufacture, including the new Flat Wire Belt design and application, along with their Woven Wire constructions and Positive Drive Chain Edge belts.—ASHWORTH BROS., INC., Metal Products Div., Fall River, Mass.

146. FUNCTIONAL GLASS BLOCK DATA—Folder shows in detail daylighting function of Light-directing and Light-diffusing Functional Glass Blocks.—PITTSBURGH CORNING CORP., 307 4th Ave., Pittsburgh 22, Pa.

150. RIHCO HUMIDIFIERS AND COOLING SYSTEMS—Bulletin describes new atomizers with construction lessening air consumption in humidifier systems, evaporative cooling systems.—ALDRICH MACHINE WORKS, Greenwood, S. C.

151. INDUSTRIAL BRUSHES—Illustrated booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS SONS, INC., 444 Pompton Ave., Cedar Grove, N. J.

153. LAMINATED TEXTILE PLASTICS—Booklet by Synthane Corporation shows variety, application, and advantages of laminated plastic parts and supplies for the textile industry.—SYNTHANE CORPORATION, Textile Division, Oaks, Pennsylvania.

161. AUTOMATIC CLEANING EQUIPMENT—Complete booklet by American MonoRail shows working details and advantages of the Tri-Rail Cleaner, a great improvement over the original unit.—AMERICAN MONORAIL CO., 13107 Athens Ave., Cleveland 7, Ohio.

162. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs as well as preserving textile mill floors.—G. H. TENNANT COMPANY, 2530 N. Second St., Minneapolis 11, Minn.

169. MACHINE BRUSHES — Illustrated Folder shows many types of machine brushes and describing their particular use for printing, washing, brushing, singeing, and shearing is sent free upon request.—INDUSTRIAL BRUSH COMPANY, INC., Woodside Avenue, Little Falls, New Jersey.

173. BLOWERS AND EXHAUSTERS — Bulletin No. 3014-D describes types "E" and "RE" electric blowers and exhausters. Uses and full description of each with detail drawings.—BUFFALO FORGE CO., 490 Broadway, Buffalo 5, N. Y.

174. PAINT STRIPPING BOOKLET — Illustrated booklet providing helpful data on latest materials and methods for simplified stripping of paint. Methods described include: (1) steam gun; (2) hot flow-on; (3) cold spray; and (4) tank immersion.—OAKITE PRODUCTS, INC., 22 Thames St., New York 6, N. Y.

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181. AIR FILTRATION—Bulletin 234 describes and illustrates the Auto-Airmat, which is the automatic dry-type air filter. Principle of operation, performance characteristics, construction and installation fully discussed.—AMERICAN AIR FILTER COMPANY, INC., 275 Central Ave., Louisville 8, Ky.

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208. CUTLER-HAMMER MOTOR CONTROL — Booklets describe the combination starters for the textile industry, for roving frames and spinning frames, loom switch and Cutler-Hammer Motor Control for textile cards.—CUTLER-HAMMER, 315 N. 12th St., Milwaukee, Wisconsin.

209. STEEL PULLEYS.—Pictorial review of American Steel Pulleys, their manufacturing processes and some of their end uses. Textile pulleys are featured.—AMERICAN PULLEY CO., 4200 Wissahickon Ave., Philadelphia 29, Pa.

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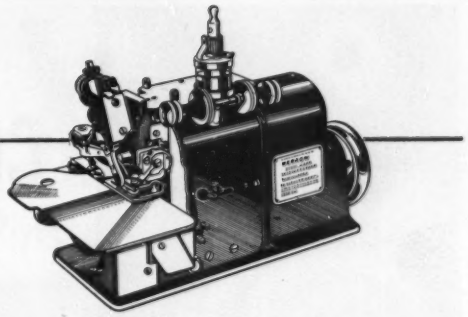

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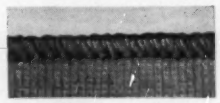

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222. AUTOMATIC PRODUCTION CONTROL—Booklet by Reeves Pulley Company, shows application of many automatic processes and controls to the textile industry. Well illustrated, it contains engineering data quite useful to anyone interested.—REEVES PULLEY COMPANY, Columbus, Indiana.

227. WOOLEN AND WORSTED MILL ELECTRICAL EQUIPMENT—Booklet by Westinghouse follows processes through the mill and shows application and advantages of Westinghouse equipment.—WESTINGHOUSE ELECTRIC CORP., Box 2099, Pittsburgh 30, Pennsylvania.

229. DODGE GENERAL POWER TRANSMISSION MACHINERY—Catalog describes various types of power transmission apparatus by Dodge. Gives specifications, sizes, applications, and prices. Very comprehensive. — DODGE MANUFACTURING CORP., Mishawaka, Indiana.

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237. MOTOR CONTROL—Brochure gives description and engineering data on the Cutler-Hammer Motor Control for roving and spinning frames. Uses listed and advantages discussed. — CUTLER-HAMMER, INC., Milwaukee, Wisc.

238. TEXTILE LEATHERS CATALOG—Catalog by J. E. Rhoads & Sons gives characteristics and advantages of Rhoads "Tannate" leathers. Complete line is listed and described, and tips for correct installation. Copiously illustrated.—J. E. RHOADS & SONS, 35 North Sixth St., Philadelphia, Pa.

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265. SERVICE PROCEDURE FOR BALL BEARINGS—A helpful manual for maintenance engineers giving helpful hints on disassembly, inspection, cleaning, lubrication, and replacement of ball bearings in any mechanism.—NEW DEPARTURE, Division of General Motors Corp., Bristol, Conn.

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321. RED-RAY BURNERS — Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., 445 W 45th St., New York, N. Y.

324. STROBOTAC—Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

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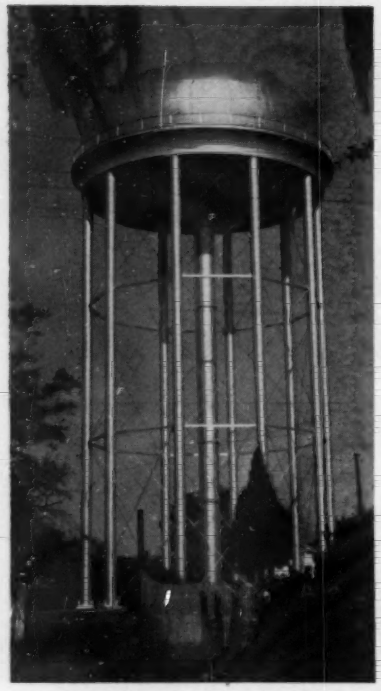

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447. CONE WINDER—Form A95 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply.—FOSTER MACHINE COMPANY, Westfield, Mass.

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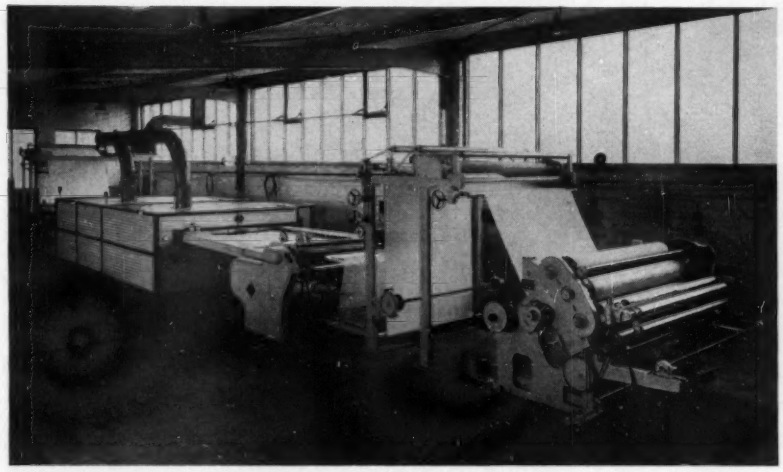

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469. SHORT CUT TO STAPLE FIBER SPINNING—Color brochure shows the ten steps in operation of the Turbo Tow Stapler, gives technical details and diagrams.—TURBO MACHINE COMPANY, Lansdale, Pa.

471. FACTS ABOUT YOUR FLYERS AND SPINDLES—Booklet by Ideal Machine Shops shows how smooth Flyer and Spindle operation can help produce higher and more efficient output, good quality yarn, minimum wear, and larger bobbins.—IDEAL MACHINE SHOPS, Bessemer City, N. C.

474. BALL BEARING COMB BOXES—Southern States Equipment Corp. offers literature on their famous C-1 Ball Bearing Comb Boxes. Description, working principle, cut-a-way views shown.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.

475. TEXTILE ROLL COVERING AND MILL SUPPLIES—Color booklet by Armstrong shows and describes their complete line of textile roll coverings, including also loom supplies, mill supplies. Roll covering for Cotton, Silk and Synthetic and Woolen and Worsted systems. An excellent guide book.—ARMSTRONG CORK CO., Industrial Div., Lancaster, Pa.

476. TEXTILE FIBER OPENER FOR COTTON, SYNTHETICS, WOOL—New brochure by Cen-Tennial Cotton Gin Co. gives complete data on the Cen-Tennial Opener which incorporates improvements on the original SRRL Opener. Complete operating procedure is described.—CEN-TENNIAL COTTON GIN CO., Columbus, Ga.

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509. MULTI-MOTOR SLASHER DRIVES—Booklet designed to bring the descriptive information on multi-motor slasher drives up to date, and emphasize the improvement in the drive through the use of Rototrol for the control of winding tension.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

511. ALUMINUM BEAMS—Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry. Illustrates this company's beams that are one-third the weight of conventional types.—HAYES INDUSTRIES, INC., Jackson, Mich.

517. LOADING SYSTEM—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices.—THE FOXBORO COMPANY, Foxboro, Mass.

521. STEEL WARP BEAMS—20-page Catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties.—MILTON MACHINE WORKS, INC., Milton, Pa.

530. ROTARY UNIONS—New catalog shows how to cut costs, get better sealing on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count."—PERFECTING SERVICE COMPANY, Atando Ave., Charlotte, N. C.

536. HOMOGENIZER IMPROVES SLASHING—Pamphlet by Manton-Gaulin Manufacturing Company shows mechanical conversion of size by the Gaulin method produces better size. Gives installation pictures and specifications.—MANTON-GAULIN MANUFACTURING COMPANY, INC., Everett, Mass.

537. WEST POINT'S HOT AIR SLASHER—Bulletin describes advantages and capacities of new hot air slasher by West Point Foundry and Machine Works. Detailed specification included.—WEST POINT FOUNDRY AND MACHINE WORKS, West Point, Georgia.

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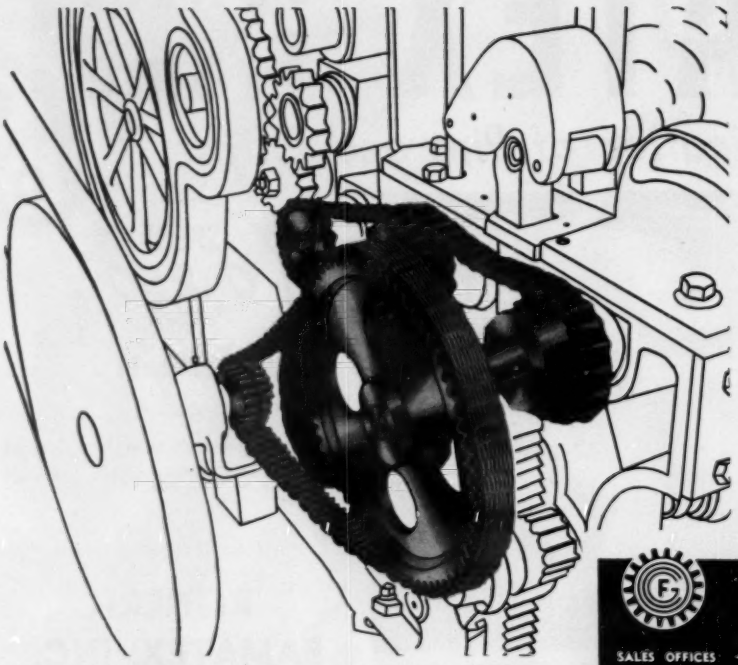

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539. AUTOMATIC REGAIN CONTROL OF RAYON AND SYNTHETIC FIBER SLASHING—Technical booklet by Minneapolis-Honeywell gives data on their electronic, multi-range "Moist-O-Graph" system for controlled regain.—MINNEAPOLIS-HONEYWELL REGULATOR CO., Station 64, Philadelphia 44, Pa.

540. SLASHING EQUIPMENT — Brochure by Tower Iron Works shows different types of slashing equipment, enumerating characteristics and advantages of each.—TOWER IRON WORKS, 50 Borden St., Providence 3, R. I.

545. NOPCO CHEMICAL DATA SHEETS—Now available are Nopcostats, Nopco Sizes N and D, Important points in Warp Sizing, Interpretation of Analysis, Wetting Agents, Balanced wool and worsted oils, Acetate Warp Sizing, Viscose warp sizing, Rayon soaking.—NOPCO CHEMICAL CO., Harrison, N. J.

DYEING, FINISHING CLOTH ROOM . . .

601. CONTINUOUS PEROXIDE BLEACHING RANGES—Booklet gives illustrations and describes uses and gives specification of Ranges.—RODNEY HUNT MACHINE CO., 49 Mill St., Orange, Mass.

602. CONTROLLED VAT DYEING—Calco technical booklet No. 828 discusses Stabilization of Vat Dyes at Elevated Temperatures, Instrumental and Analytical measurements, Lenco Potentials.—AMERICAN CYANAMID CO., Calco Chemical Division, Bound Brook, New Jersey.

606. HYDRAULIC POWER UNITS—Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

608. WASHERS FOR SCOURING, BLEACHING, ACIDIFYING—Well-illustrated booklet shows how Sargent's modern, high-capacity, continuous process washers can help maintain quality and decrease costs. Contains operation diagram and good commentary on construction.—C. G. SARGENT'S SONS CORPORATION, Graniteville, Mass.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY—Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Pre-Boarding and Automatic Boarding Machines for hosiery.—PROCTOR & SCHWARTZ, INC., 7th and Tabor Rd., Philadelphia, Pa.

615. HIGH PRODUCTION EXTRACTOR FOR RAW STOCK—YARN—HOSIERY — Descriptive bulletin and full information on automatic Twintainer Extractor with bottom-unloading removable baskets. Machine replaces three conventional extractors, lowers labor costs.—FLETCHER WORKS, INC., Philadelphia, Pa.

616. FINISHING DRIVES—32-page booklet covers complete drives Westinghouse has engineered for the textile finishing industry. Describes all types of finishing ranges and discusses advantages of Westinghouse drives for these installations. "Packaged" drives for batch processes covered.—WESTINGHOUSE ELECTRIC CORP., 511 Wood St., Pittsburgh 30, Pa.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING—Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation.—TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

620. REGENERATION OF ZEOLITE WATER SOFTENERS—Booklet explains advantages of International's Lixate Process in regeneration of zeolite water softeners. Shows how it cuts costs and does a better job.—INTERNATIONAL SALT COMPANY, INC., Scranton, Pennsylvania.

621. "DYEING SYNTHETIC FIBERS" — Brochure giving a comprehensive, detailed analysis of the methods and materials available for dyeing synthetic fibers.—GENERAL DYESTUFF CO., 435 Hudson St., New York 14, N. Y.

623. SELVAGE GUIDER—The Marshall and Williams positive overfeed and selvage guider is described in a brochure as being developed to meet the most modern requirements of the textile finishing industry. Full description, pictures and advantages discussed.—MARSHALL AND WILLIAMS CORPORATION, 46 Baker Street, Providence 5, R. I.

627. SINGLE APRON STOCK DRYERS—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

628. TREATMENT OF SYNTHETIC TEXTILE FINISHES—High speed drying and curing of synthetic finishes by means of far-infrared radiation is covered in a new 22-page folder entitled "The Textile Report" by EDWIN L. WIEGAND COMPANY, 7700 Thomas Blvd., Pittsburgh 8, Pa.

631. ELIMINATE DYE-BATH SHOCK—Data sheet by Foxboro shows how woven fabrics and hosiery may be protected from Crow's-feet, uneven shade, creasing caused by too rapid cooling of goods. Write for data sheet, 220-60.—FOXBORO COMPANY, 487 Neponset Ave., Foxboro, Mass.

632. LUG STRAP WASHERS—Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—E. H. JACOBS NORTHERN DIV., Danielson, Conn.

637. BALL BEARING TURN TABLE—Leaflet describing this 48" diameter steel turn table for use in mills where the cloth is delivered in rope form to trucks and the trucks are placed in position ahead of a Scutcher or cloth opening machine. Advantages discussed.—BIRCH BROTHERS, INC., 32 Kent St., Somerville, Mass.

638. DYEING AND FINISHING MACHINES—Booklet by James Hunter Machine Company shows pictures, applications, and advantages of following: "Vapo Jet" Dryer; "Hunter Dye Beck;" "Flexreel" Rope Washer; Continuous Cloth Washer; Model "S" Dye Kettles; Compartment Washer; Fulling Mill; Top Dyeing Machine; "Uniflow" High-speed Tenter Dryer; Cloth Carbonizer.—JAMES HUNTER MACHINE CO., North Adams, Mass.

639. ROTARY DYEING MACHINE—Booklet No. 425 illustrating the features of these stainless steel machines used for dyeing hosiery, hats, gloves, socks, etc.—SMITH, DRUM & CO., Allegheny Ave. at 5th St., Philadelphia 33, Pa.

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653. GUIDERS AND TENSION DEVICES—Illustrated and described are the Mount Hope Precision Guiders and open width Tension Devices used for accurate, straight line guiding of open width goods. Bulletin SG-PG.—MOUNT HOPE MACHINERY CO., 15 Fifth St., Taunton, Mass.

655. PAPER TUBES FOR YARN AND CLOTH—Complete data to help you solve your paper tube problems. Overnight delivery of yarn and cloth paper tubes and boards. Shows how warehousing of these items can be avoided.—TEXTILE PAPER PRODUCTS, Cedartown, Ga.

658. 6-BEAM MULTIPLE DYEING—Information on the Morton System Horizontal Beam Dyeing machine is available. Features include minimum handling of beams and the use of a common or individual dyebath for as many as six beams.—MORTON MACHINE WORKS, 1718 Third Avenue, Columbus, Ga.

DYESTUFFS, CHEMICALS, SOAPS . . .

701. MAGNESIUM APPLICATIONS—Case history information on magnesium application in the textile field, published bi-monthly with latest developments in the magnesium industry.—DOW CHEMICAL CO., Midland, Mich.

704. FUNDAMENTALS OF INDUSTRIAL WATER TREATMENT PROCESSES—24-page booklet entitled 'If You Use Water" discusses the fundamentals of the three major classifications of industrial water treatment based on ion exchange: softening, dealkalization, and deionization.—ROHM & HAAS COMPANY, Resinous Products Div., Washington Square, Philadelphia 5, Pa.

705. THEORETICAL AND APPLIED SILK-SOAKING—Attractive 23-page booklet outlining methods of silk-soaking and outlining investigation on the soaking, back-winding and degumming of silk.—HART PRODUCTS CORP., 1440 Broadway, New York 18, N. Y.

710. DEPUMA—An odorless, viscous, non-evaporating emulsion which is highly efficient as an anti-foam, useful in all phases of dyeing and printing.—AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York, N. Y.

713. LIOVATINE ED—Vat dyeing assistant increasing penetration and level dyeings with maximum yield of color.—SANDOZ CHEMICAL WORKS, 61 Van Dam St., New York City.

714. NEW SODA ASH BULLETIN—64-page editon contains both new material and revisions of previously used data covering the subject. Ask for Bulletin No. 5—SOLVAY SALES DIV., 40 Rector St., New York 6, N. Y.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletin on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and yarn, hosiery processing.—ARKANSAS CO., INC., Newark, N. J.

719. WOOL OIL—Descriptive booklet on anti-static fiber lubricant, Twitchell 7421. Performance factors given, particular emphasis are static control, scourability, lubricity and resistance to yellowing.—EMERY INDUSTRIES, INC., Dept. 5, Carew Tower, Cincinnati 2, Ohio.

720. INDUSTRIAL OIL—Bulletin catalogs all of Swift's Industrial Oil and Fatty Acid products. Included are detailed specifications, shipping information and suggested usage on products of animal, vegetable and marine sources.—SWIFT & COMPANY, Industrial Oil Department, 1800 165th Street, Hammond, Indiana.

721. SURFAX 1288. Product data sheet explains this useful wetting and rewetting agent. Described as being water soluble at all temperatures and is a highly concentrated, economical surface active agent.—E. F. HOUGHTON & CO., 303 W. Lehigh Ave., Philadelphia, Pa.

722. RESINS & LATICES — Booklet describes chemigum, latex, pliolite latex, plivola latex, plivoic AO and their applications. Gives properties of Goodyear Latices.—GOODYEAR CHEMICAL DIV., 1144 East Market St., Akron 16, Ohio.

727. COLOR PRINCIPLES.—Booklet available from Sandoz Chemical, describes the fundamental principles of color and its measurement. Booklet has been adopted by several of the leading textile schools.—SANDOZ CHEMICAL WORKS, INC., 61 Van Dam Street, New York 13, N. Y.

729. STATIC AND STATIC CONTROL—Papers deal with historical background of static electricity and the problems caused by it along with methods of controlling them.—DEXTER CHEMICAL CORP., 819 Edgewater Road, New York 59, N. Y.

733. WOOL OILS—Twin booklets by Proctor and Gamble tell of the influence of wool oils in producing quality yarns and fabrics, and of Proctor and Gamble's Proxol T, an outstanding wool oil.—PROCTOR AND GAMBLE DIST. Co., Cincinnati, Ohio.

734. BLEACHING WITH PEROXYGEN CHEMICALS—Bleaching methods for cotton, rayon, nylon and animal fibers are comprehensively treated in Becco Research and Development Dept., Bulletin No. 52, now available.—BUFFALO ELECTRO-CHEMICAL CO., INC., Station B, Buffalo 7, New York.

745. RAPIDASE FOR DESIZING—Bulletin explaining in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

749. WATER SOLUBLE GUMS—Booklet giving the origin, gathering, marketing and uses of water soluble gums This booklet No. 23 is beautifully illustrated, and is one of the few treatises on the subject.—JACQUES WOLF & CO., Passaic, N. J.

753. TRITON X-100—Booklet available describing this highly concentrated detergent and wetting agent. Main uses fully discussed and chemical properties brought out.—ROHM & HAAS COMPANY, Philadelphia 5, Pa.

757. THE CHEMISTRY OF CYNANURIC CHLORIDE—Very comprehensive technical text by American Cyanamid Co. Gives Physical Properties, Reaction Chart, Chemical Properties, Potential Applications, Toxicity, Table of Alcohol Reactions, Table of Amine and Related Compound Reactions.—AMERICAN CYANAMID CO., 30 Rockefeller Plaza, New York 20, New York.

766. DU PONT PEROXIDE BLEACHING SYSTEMS—New booklet illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

769. SURFACE TENSION DEPRESSANT — The booklet, "Mercerizing and Alkamerce—The Ideal Dry" which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.—HART PRODUCTS CORP., 1440 Broadway, New York, N. Y.

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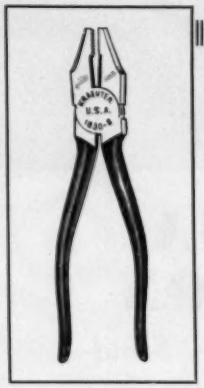

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774. ROYCE TEXTILE CHEMICALS—This booklet briefly describes the leading Royce products for textile processing, printing, dyeing and finishing.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

KNITTING . . .

801. THE WILDMAN SINGLEHEAD FULL-FASHIONED HOSIERY MACHINE—Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

808. REINER WARPER—Full width and sectional warpers for all requirements in the knitting and weaving industry fully described in recent catalog.—ROBERT REINER, INC., Weehawken, N. J.

818. FORGED HEAD ALUMINUM BEAMS—Bulletin 49-A shows new beam capable of holding high yardage of nylon and rubber warps, with specifications. Also describes permanent mold aluminum tricot and section beams.—MILTON MACHINE WORKS, INC., Milton, Pa.

823. VARIABLE STRIPER—Booklet available describing Supreme's complete line of Automatic Variable Stripers and Pattern Placer Machines.—SUPREME KNITTING MACHINE CO., INC., 105 Johnson Ave., Brooklyn 6, N. Y.

828. THE KIDDE KNITTER—Bulletin describing this newest in Raschel-type warp knitting machines and higher production attained with it.—KIDDE MANUFACTURING CO., INC., Farrand St., Bloomfield, N. J.

SEWING MACHINES . . .

924. BUTT-TACKING SEWING MACHINE — Booklet describes an operating installation of the Merrow single thread butt-tacking sewing machine. Gives performance data, and advantages of butt-tacking.—THE MERROW MACHINE COMPANY, 28 Laurel Street, Hartford, Connecticut.

925. SEWING MACHINES—The Lock-Stitch bulletin No. 258 describes and illustrates new, high speed, single needle Union Special Lock-Stitch machine for general purpose industrial sewing operations. —UNION SPECIAL MACHINE CO., 407 N. Franklin St., Chicago 10, Illinois.

MATERIALS HANDLING . . .

1003. CASTERS AND WHEELS—192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this.—DARNELL CORP., LTD., Long Beach 4, Calif.

1006. LANE CANVAS BASKETS—16-page illustrated booklet describing the Lane line of canvas baskets for textile use.—W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1007. OVERHEAD HANDLING EQUIPMENT—56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem.—THE AMERICAN MONORAIL CO., 13106 Athens Ave., Cleveland 7, Ohio.

1008. CASTERS AND WHEELS—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. CONVEYOR KEY BOOK—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well-illustrated with photos showing plant layouts and sketches showing where, how and why different types of conveyors are used for maximum results.—LOGAN CO., 1115 Franklin St., Louisville, Ky.

1011. TEXTILE TRUCKS—Booklet describing doff boxes, frames and trucks, yarn, waste, platforms, conditioning, steep lap, fiber, utility trucks, etc. Uses and description.—EXCEL TEXTILE SUPPLY CO., Lincolnton, N. C.

1013. "A STORY OF TRACTOR TOOLS AND THEIR USE"—Comprehensive illustrated guide effectively present in cartoon-style the many principal uses for this type of equipment.—HYSTER CO., 2903 N. E., Clackamas St., Portland 8, Ore.

1030. CDF RECEPTACLES—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 11, Del.

MISCELLANEOUS . . .

1102. BALING PRESSES—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. UNBRAKO SCREWS — Illustrated 16-page booklet No. 570 gives data on Unorako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1111. BRUSHES—A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1112. THE RANDOM WEB PROCESS—Bulletin No. 101 describes the Rando-Webber and Rando-Feeder machines, and discusses the origin and development of the Random Web process which produces a non-oriented web suitable for processing into felts, wadding, heavy mats and non-woven fabrics on a continuous basis. Engineering data and cut-away diagrams. — CURLATOR CORPORATION, Textile Division, 565 Blossom Rd., Rochester, N. Y.

1113. MACHINE KNIVES — Catalog and price sheets describing this company's line of knives for use on textile machinery.—TAYLOR-STILES & CO., 21 Bridge St., Riegelsville, N. J.

1115. TEXTILE WRAPPING MACHINES — Brochure describing automatic wrapping machines for various types of textile products, including the new Hayssen V-Type Underfold, most protective package made.—HAYSSEN MANUFACTURING CO., Sheboygan, Wisconsin.

1122. BALING PRESSES—Bulletins available describing this company's line of motor-driven and hydraulic baling presses for finished goods, textile fibers, wool, and waste of all kinds.—LOGEMANN BROTHERS CO., 3150 West Burleigh St., Milwaukee, Wisconsin.

PENFORD FINISHING GUMS

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The most talked about permanent textile finishes in the industry are being secured with the newer PENFORD FINISHING GUMS (highly chemically substituted starch ethers) in combination with urea formaldehyde and melamine resins on sport denims, ginghams, sail cloth and a host of other fabrics.

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PENFORD FINISHING GUM—Resin Finishes substantially reduce the characteristic loss in breaking strength and abrasion resistance associated with the usual Resin Finishes.

PENFORD FINISHING GUM's lower hydration temperatures facilitate the simple preparation of the finishing mix which consists of heating a concentrated solution of gum and cationic softener to 160°F, holding the mix at that temperature for 10 minutes, adding cold dilution water to reduce the mix to the desired use concentration and temperature, adding the resin and catalyst to complete the formulation for application and curing in conventional resin equipment.

The services of our Technical Sales Service Engineers may be obtained by request for the development of PENFORD FINISHING GUM formulations to supply the specific permanent finishes desired on your fabrics.

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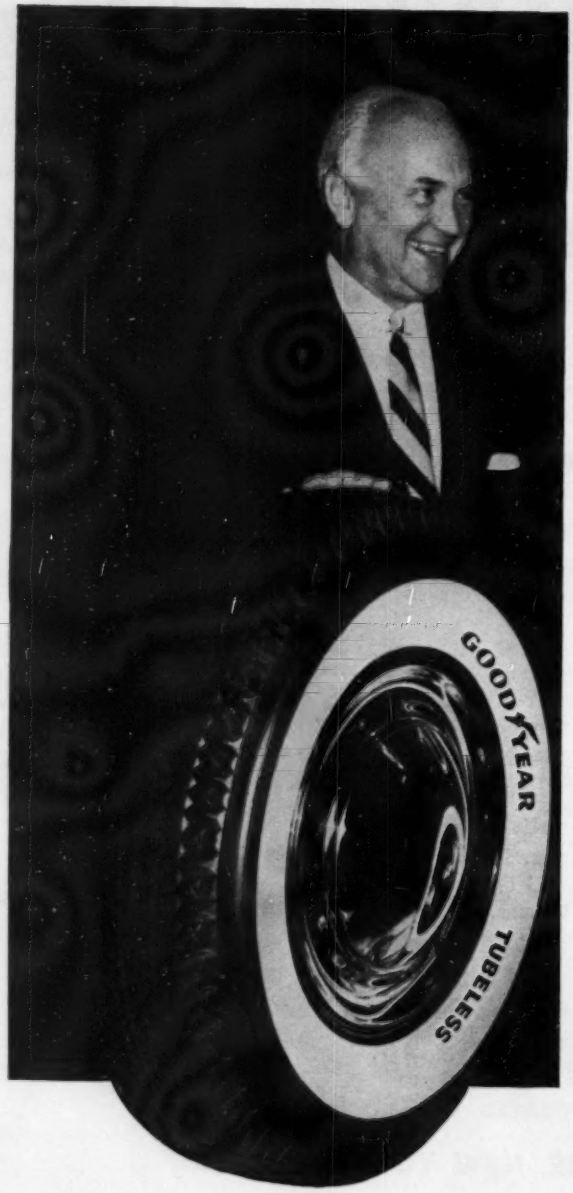

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SUPPLIERS News
WHAT THEY ARE DOING

(Continued from page 58)

ern North Carolina, with headquarters in Lexington, N. C.

The Fairbanks Co. has announced that Charles W. Freeman will now

Mr. Freeman

Mr. Lindsay

represent the company in Georgia. He is succeeded in Virginia by Douglass Lindsay.

Earl Meyers has been named sales representative in Louisiana for the **J. J. Finnigan Co.**

Ernest L. Frankl Associates have been appointed exclusive American agents for the cotton and synthetic processing machinery of **Josef Pfenningsberg & Co.**

Manufacturer's representatives recently named by the industrial mixer division of **Gabb Special Products:** United States Supply Co. for New England, and Philip H. Slaughter for Virginia, Tennessee, Arkansas, Oklahoma, Texas, and states south of these.

Robert Gair Co., Inc., has acquired the properties, assets, and business of Harvey Container Corp. The new acquisition will be operated as the Harvey Container Division of the parent company.

Stockholders of **Gardner-Denver Co.** and **Keller Tool Co.** have approved a consolidation of the two companies. Keller now becomes the Keller Tool Division of the Gardner-Denver Co., and will continue operations under the same management.

Lewis Sewing Machine Co. is the new name of the former **Lewis Invisible Stitch Machine Co.** The New York office of the firm has been moved to 315 West 35th St.

The outstanding capital stock of Doelcam Corp., manufacturer of instruments and control equipment, has been purchased by **Minneapolis-Honeywell Regulator Co.**

Mona Industries, Inc., has opened a branch office and warehouse in Greenville, S. C., which will operate under the name Mona Southern.

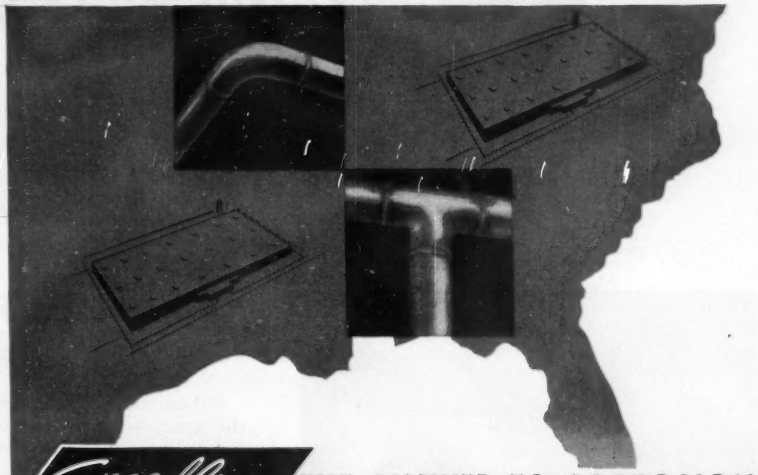
Paul S. Hess has been named technical director of **General Plastics Corp.**

General Radio Co. has announced the appointment of Donald B. Sinclair as vice-president for engineering.

Kurt C. Frisch has been appointed assistant manager of research for the **E. F. Houghton Co.** He is succeeded as supervisor of organic research by Ellis Abrams, former supervisor of textile research for Quaker Chemical Products Corp.

Imperial Paper and Color Corp. has named Polymer Southern, Inc., and Polymer Industries, Inc., as exclusive

THE NEWEST* THING IN PIPELINE ECONOMY



Speedline THE ANSWER TO CORROSION CONTROL AT SOUTHERN COTTON MILL

No evidence of corrosion or pitting in the bleaching piping installation . . . after more than two years of continuous exposure to strong acids and caustics used in the bleaching process! That's the report on SPEEDLINE Fittings from the Chief Engineer at one of the nation's leading cotton mills.

Elimination of corrosion problems means important cost savings where 600,000 sq. ft. of mill space are utilized for bale to cloth manufacture of cotton sheets—but it represents only one of the advantages made possible by corrosion-resistant SPEEDLINE Fittings.

By using economical, light wall, schedule 5 or 10 pipe, with SPEEDLINE Fittings, you retain the same or greater effective pipe wall as with schedule 40 pipe and conventional screwed fittings, plus getting freer, uninterrupted flow where it counts most—at the joints! SPEEDLINE Fittings eliminate restricted flow areas common to screwed joints which set up turbulence and cause pitting . . . also crevices are eliminated or minimized where dyes and acids can become lodged thus impeding the effectiveness of subsequent bleaching and finishing operations.

In addition, the exclusive tangential feature (extra length section) on all SPEEDLINE Formed Fittings permits easier flanging or welding of free-flowing butt end joints throughout the piping installation. These features add up to better bleaching and finishing quality control—plus a new high in pipeline economy.

Write for a copy of "SPEEDLINE FITTINGS" . . . without obligation.

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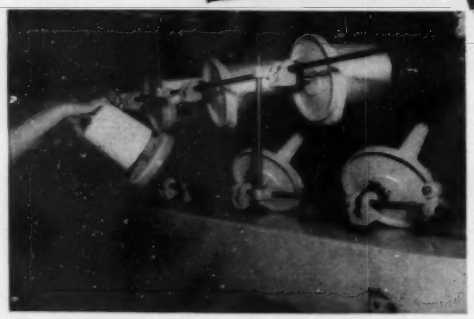
FOSTER-MUSCHAMP

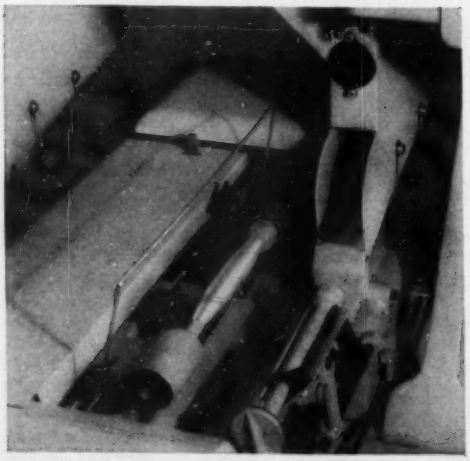
MODEL 66 Automatic Filling Winder

(Made in Westfield, Mass., U.S.A.)

Operating Cost 1/4¢ PER LB. OF YARN QUILLED



Magazine Creel. Cone Holder Swings Out for Donning and Doffing.



Empty Bobbin Ready to Move Into Winding Position. Close Delivery Thread Guide and Feelerless Build.

Compare These Figures with Those for Any Competing Winder

When the magazine creel carries 4 lb. cones and when the machine is equipped with a central bobbin hopper replenisher and automatic pinboarding, or filling box stacker, the operating cost of the Model 66 is as low as ¼c per lb. of yarn quilled. Here is how we arrive at this figure on the basis of quilling 20,000 lbs. of 150 denier rayon in 40 hours.

	Time per Package	*Time for 20,000 lbs*
Creeling in	.25 min.	1250. min.
Piecing up broken ends (1½% breakage)	.11 min.	550. min.
Supplying pinboards	.0488 min.	244. min.
Other duties (5% tot. time)	.024 min.	120. min.
Personal time (5% tot. time)	.024 min.	120. min.
TOTAL TIME (1 operator 40 hrs.)	.4568 min.	2284. min.*

*Note there are 2400 minutes in 40 hours.

Standard hourly rate of 1 operator times 40 hrs. divided by 20,000 equals $.0025.

Exceptionally low operating cost is only one of 8 POINTS OF SUPERIORITY which Foster-Muschamp Model 66 offers. Learn about the other 7 points. Write for FOSTER FACTS — Volume 4 — Number 5.

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A Winder for Every Textile Purpose

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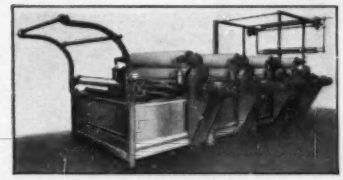
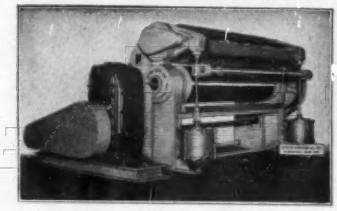


REGULATED-TENSION, OPEN-WIDTH CONTINUOUS MACHINE

A machine of stainless steel construction, designed so that additional units may be readily added. A standard machine which with proper modifications may be used for Boiling-Off, Scouring, Crabbing, Dyeing or Open Soaping. A roller bearing equipped machine with the pressure applied to rubber squeeze rolls by air cylinders. Drive by D.C. motors controlled by Dancer Rolls. Used on Pile Fabrics, Cottons, Rayons, Rayon Blends, Gabardines, Worsteds and Woolens.



NEW TWO ROLL MANGLE OR PADDER. 5, 10, OR 15 TON CAPACITY. PRESSURE BY AIR CYLINDERS. GUARD FOR NIP.

FOR BEST EXTRACTION

Patent Reenforced Adjustable Vacuum Extracting Box with Automatic Slot Seals. Used in combination with dry cans, scutchers, mangles and continuous machines.

SPREADER AND GUIDER

for keeping goods central and free from wrinkles in open width dyeing and elsewhere. Widths up to 20 feet. Electrically controlled. Of stainless steel.

BIRCH BROTHERS, INC.

32 KENT STREET

SOMERVILLE, MASS.

Phone: PRospect 6-3512

Southern Representative:
John C. Cosby, P. O. Box 212
Greenville, S. C.

HAROLD W. BIRCH CLIFFORD W. BIRCH
CLIFFORD W. BIRCH, JR.

SUPPLIERS News — WHAT THEY ARE DOING

selling agents for Imperial aqueous pigment dyeing and printing systems.

Officers elected recently at **Lockwood Greene Engineers, Inc.:** Samuel B. Lincoln, board chairman; William J. Heiser, president and treasurer; H. Morgan Rogers, Jr., vice-president; and Samuel B. Roberts, director.

Recent promotions at **Meinhard & Co., Inc.:** Harold J. Leedy to vice-president, Henricks H. Whitman, Jr., to assistant vice-president, and Howard R. Patten to assistant secretary.

Forty-two sales engineers were recently added to the field sales force of **Minneapolis - Honeywell Regulator Co.,** industrial division, at 25 branch offices located in 23 U. S. cities and two Canadian cities. All are graduates of the division's training school in Philadelphia.

James S. Hamer has been named sales representative for the **Graton & Knight Co.,** covering west central Tennessee and Kentucky, northern

Mr. Hamer

Arkansas and Mississippi, and southern Indiana.

Hyster Co. has named Harvey A. Raasch as export sales manager.

J. R. Angel has been appointed southeastern sales manager for **Morton Machine Works,** with headquarters in the M. G. Building, Atlanta, Ga. He formerly represented Morton in the Carolinas.

Jack Boykin has been named southern manager of **National Aniline Division,** Allied Chemical & Dye Corp., and will make his headquarters in the division's Charlotte, N. C., office.

The Oilgear Co. has announced the

GAS CAN SAVE YOUR MILL MONEY!

Gas can save your mill money in many ways. First of all, the fuel itself costs less. There is no coal or ash handling required and no flues or tubes to keep clean and free of soot.

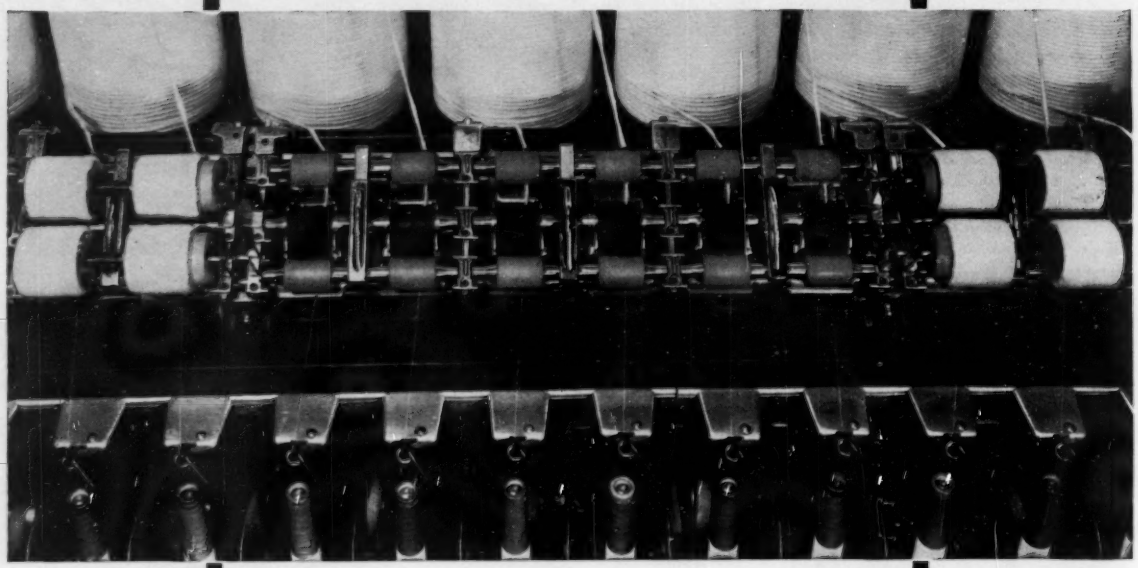
Labor costs are materially reduced — one man can check burners periodically in the daytime and the watchman can check them at night. There is also less maintenance on equipment and fewer shut downs for repairs.

McBurney installs and services burners, including gas, oil, or combination gas-oil burners. Your present firing system can be retained in a stand-by capacity. Ask for details today.

CALL McBURNEY FOR THESE FINE EQUIPMENT LINES: Copes-Vulcan Boiler Controls, Copes Feedwater Regulators, Vulcan Soot Blowers, McBurney Underfeed Coal Stokers, Aqua Electric Scale Control, Gas & Oil Burning Equipment.

McBURNEY
STOKER & EQUIPMENT COMPANY

2110 Peachtree Rd., Atlanta, Ga.
PHONE
ELGIN 4436



1,500,000 SPINDLES EQUIPPED WITH

Roberts Company is the only manufacturer making all of the components of a complete drafting system changeover including No-Oil Cap Bars and Saddles. Roberts Company is the only changeover manufacturer that CAN and DOES stand in back of its complete drafting system package which includes No-Oil Cap Bars and Saddles.

ROBERTS HIGH-DRAFT CHANGE-OVERS

ROBERTS COMPANY

Sanford, North Carolina, U. S. A.

SUPPLIERS News — WHAT THEY ARE DOING

appointment of R. S. Carson as east central district manager, with offices in Cincinnati.

Howard Murray has been named general manager of sales for **Philadelphia Gear Works.** He was formerly in charge of the company's Houston office.

Mr. Murray

Reichold Chemicals, Inc., now occupies the entire building at 525 North Broadway, White Plains, N. Y. Part of the building was formerly used as the executive offices of Alexander Smith, Inc., now located in New York and Greenville, Miss. Reichold has inaugurated a helicopter shuttle service to its offices from La Guardia Field and Idlewild Terminal.

Process Machinery Co., Inc., is now engaged in the manufacture of hosiery finishing machinery, with offices at 2506 Ashe Street, Durham, N. C. J. C. Berry is president of the firm, George Newton is vice-president, and W. J. Berry is secretary-treasurer.

August Schoenenberg has announced his resignation from **Robert Reiner, Inc.,** after 17 years with the firm.

The directors of **Reliance Electric & Engineering Co.** and the shareholders of **Reeves Pulley Co.** have approved the acquisition of Reeves by Reliance. The management at Reeves will remain intact and the company will continue as a separate division.

Charles R. Herter has been named district manager in charge of the Detroit office of **J. O. Ross Engineering Corp.**

Singer Sewing Machine Co. has announced the opening of an agency

BARBER COLMAN

NEW, ADVANCED DESIGN

Motor-operated Valve

Opens and closes in seconds!

- For hot or chilled water, low-pressure steam — seat closes in three to five seconds . . . opening time slightly longer.
- New, compact design — ideal for convectors, radiators, baseboard radiation, air conditioners, spray nozzles.
- Two-position! It's all on or all off.
- Simple two-wire control. Easy to wire, easy to install. Available normally open or normally closed.
- Complete mechanism submerged in oil and enclosed in a rugged case. Self-lubricating, trouble-free service.
- Positive closure — operator force seats valve. Not dependent upon line pressure to close.
- Spring-loaded Teflon packing rings never need adjustment for varying static pressures.

NEW BULLETIN F. 6801, now available. Consult nearby Field Office, or write . . .

Barber-Colman Company

DEPT. O, 1340 ROCK STREET ROCKFORD, ILLINOIS, U. S. A.

NEW U.S. ACME Combo TWISTER

3 machines combined into 1

No. 1 CONVENTIONAL UP-TWISTER

No. 2 HEADLESS PACKAGE UP-TWISTER

No. 3 WITH PERMANENT MANDRELS

• NEW SHOCK PROOF TRAVERSE MOTION

one of the "SHORT-CUT METHOD" pair

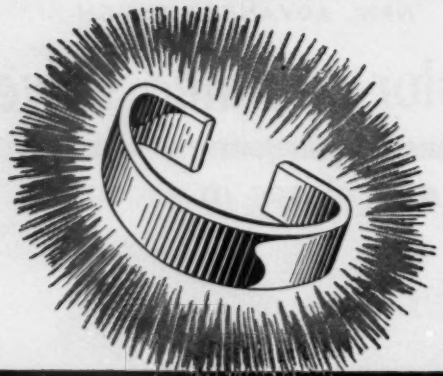
Write or phone for complete information

U.S. ACME

COMBO DOUBLE DECK TWISTER

Here is twisting versatility at its profitable best in a new, LOW COST MACHINE that's made for today's competitive, changing market!

U. S. TEXTILE MACHINE CO.
SCRANTON 8, PENNA.



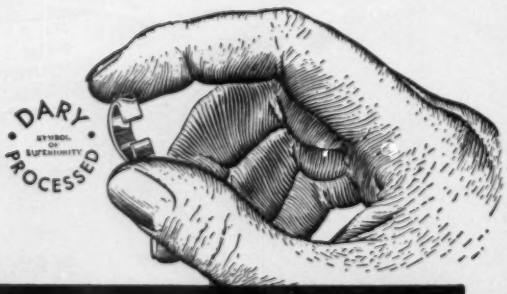
DARY
Ring Travelers

OUR SPECIALTY!

Our specialty is making Dary ring travelers—an item well and favorably known to the textile trade for more than half a century. Though times change, we at Dary hold to one course without deviation. We continue to serve, by pursuing our specialty.

When you need ring travelers, call on our experience to aid your choice. Consult your friendly Dary representative!

Always specify
DARY Ring Travelers



THE DARY RING TRAVELER CO.
TAUNTON, MASSACHUSETTS

LINDSEY I. PHILLIPS, TREASURER, TAUNTON, MASS.
JOHN H. O'NEILL, BOX 720, ATLANTA, GA.
JAMES H. CARVER, BOX 22, RUTHERFORDTON, N. C.
CRAWFORD "JACK" RHYMER, BOX 2261, GREENVILLE, S.C.

US
RUBBER

MIRATEX...

the world's most famous elastic yarn—made in a complete range of sizes and tensions for knitting, weaving or shirring elastic fabrics.

MIRATRON...

the first extruded latex thread—long a favorite for all types of webbing. Available in regular and in the heat-resistant compound pioneered by U. S. Rubber to meet postwar laundering requirements.

MIRASPUN...

the supersoft, superfine elastic yarn—developed and made only by United States Rubber Company, vital for knitting or weaving the lightest and sheerest of fabrics.

REVTEX...

"U. S." trademark for one of the original cut-rubber threads—used for many generations by industry in all kinds of narrow elastics. Also available in the heat-resistant compound.

For Further Information Write

UNITED STATES RUBBER INTERNATIONAL
159 East 42nd Street, New York 17, N. Y.

SUPPLIERS News
WHAT THEY ARE DOING

in Charlotte, N. C., for the sales and service of industrial sewing machines and equipment. The agency will serve the states of North and South Carolina. M. B. Watson has been appointed general agent to head the Charlotte organization, with F. R. Barford as assistant general agent.

Sjostrom Machine Co. has moved its plant and general offices from Lawrence, Mass., to Boca Raton, Fla.

The textile machinery and parts of **C. G. Sargent's Sons Corp.** for the woolen and worsted industries in Japan and Korea will be handled by Cosa Export Co., Inc., with offices in New York, Tokyo, and Osaka.

Appointments and transfers in the sales division of **Scott & Williams, Inc.:** Fred H. Hallenbeck has been appointed director of southern sales,

Mr. Hallenbeck *(upper left)*

Mr. Seymour *(upper right)*

Mr. Nealley *(left)*

with headquarters in High Point, N C.; John Seymour has been transferred from Laconia, N. H., to High Point; and Alton W. Nealley has been transferred from High Point and made manager of the Chattanooga, Tenn., sales division. * * * The company has acquired much of the physical assets of the **Brinton Machine Co.** Brinton-type knitting machines will be supplied by a new Brinton Fabrics Machine Division of the Scott & Williams firm. Brinton will continue in business only as a general machine shop.

Universal Winding Co. has been licensed to make and sell the apparatus employed in the manufacture

hydrocop *and*
3b softener

Use this efficient—time proven—emulsion combination from your winder emulsion troughs and profit from a new high in quality, luster and softness. HYDROCOP and 3B SOFTENER will help you to obtain increased production of smooth, more even running, more easily knit yarns.

HYDROCOP and **3B SOFTENER** speed up the conditioning of greige, dyed or bleached yarns; cotton; woolen, worsted and cashmere; orlon; nylon; rayon and blends. Produced from first quality vegetable oils and non-mineral waxes which insure dependable performance, HYDROCOP and 3B SOFTENER are highly resistant to aging and discoloration, and do not cause shade change.

CHENILLE YARNS—Hydrocop—used with Mildant RX—will produce perfectly conditioned, smooth running, mildew resistant chenille yarns.

let us send you samples and more information.

LAUREL SOAP MANUFACTURING CO., INC.
Wm. H. Bertolet's Sons · established 1909
2603 East Tioga Street, Philadelphia 34, Pa.

Warehouses: Paterson, N. J., Chattanooga, Tenn., Charlotte, N. C.

The *COLSON*
"Handler"
Really Gets Around!

...even in busy, narrow aisles

The COLSON "Handler" turns in its own length, weighs (and costs) only ⅓ as much as a fork truck and lifts and carries loads up to 4000 pounds. Just one lever does it all... shifts, lifts and brakes.

Before you buy a more expensive piece of equipment, make sure that the "Handler", only $1395 F. O. B. Elyria, Ohio, won't do the job just as well—or better.

Write for free booklet "The COLSON Handler"

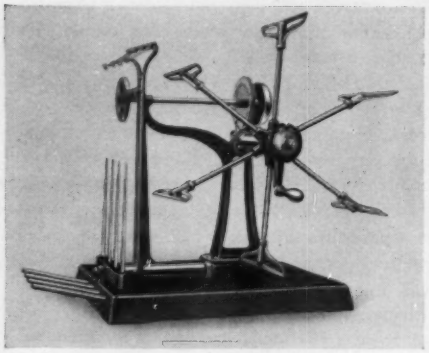
Casters • Hand Trucks • Lift Jack Systems
Hydraulic, Electric and Mechanical Power Lifts and Transports

THE Colson® *CORPORATION*
Elyria, Ohio

WHITIN YARN REELS *

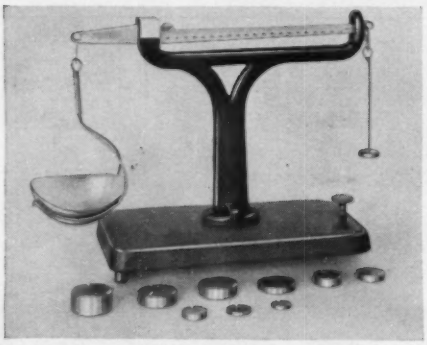
The Whitin Yarn Reel (No. 975) will reel accurately up to 120 yards of yarn with uniform tension from bobbins and is used in conjunction with roving scales or yarn testers to determine count, stretch, or strength of cotton, wool, worsted, linen, synthetic or other yarns.

The reel is available with either four or seven spindles and is 54" in circumference. A graduated dial indicates the number of yards reeled from each spindle. An automatic feed motion lays the yarn flat on the reel.



and

ROVING or YARN SCALES *



A precision scale (No. 980) for weighing roving yarn or samples of any material. Weights calibrated for each scale are available for weighing up to 1 lb. by tenths of grains. Scoop is made of Monel metal; beam and pea are dull chromium plated; weights are stainless steel and furnished in wooden case.

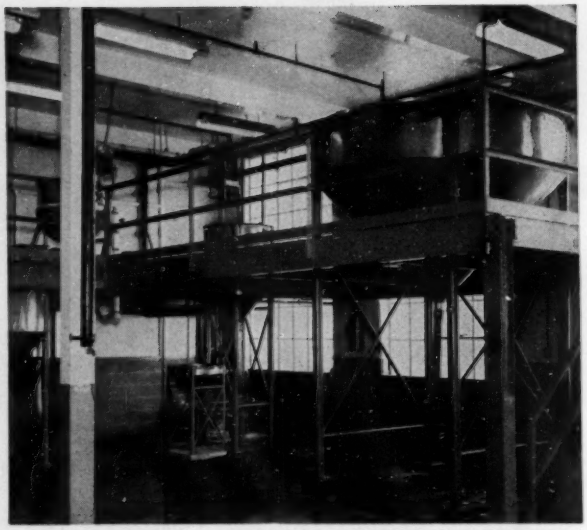
For weighing samples or small objects, a similar scale (No. 982) of 1 lb. capacity is available with weights calibrated in 10 thousandths of a pound, or in the metric system up to 500 grams by hundredths of a grain.

WHITIN

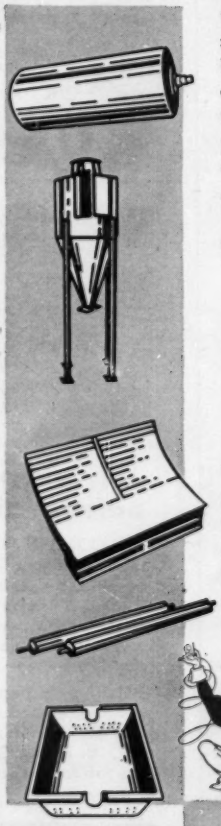
MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

* Formerly made by Browne & Sharpe Mfg. Co. Repair orders and queries should be addressed to Repair Department, Whitin Machine Works, Whitinsville, Mass.



for economy it's STAINLESS STEEL



Down go maintenance and operational costs when you switch to stainless steel! Corrosion, wear and break-down resulting from them are eliminated by the use of this modern wonder metal . . . Consider replacing your old-fashioned hard to clean and maintain pressure vessels, acid tanks, dye vats or starch kettles with SIMS built stainless steel equipment.

for Quality it's

SIMS

With one of the most modern and progressive metal working shops in the south, the technical "know-how" of SIMS craftsmen and the SIMS guarantee of quality products, you are assured of equipment built to your *exact* specifications.

For *Custom Tailoring* of Stainless Steel . . . Call, wire or write today.

FABRICATORS SINCE 1928

Sims METAL WORKS

WEST POINT, GA.

SUPPLIERS News — WHAT THEY ARE DOING

of "Agilon" stretch yarn, the new elasticized yarn developed by the Deering Milliken Research Trust. It is claimed that the change-over of existing machinery may be easily accomplished.

Whitin Machine Works have purchased the entire line of plain and spiked metallic lifting, stripping, and conveyor aprons formerly manufactured by the Sjostrom Knotwood Apron Co., Inc. * * * Whitin has donated a $30,000 machine laboratory to Lowell Technological Institute.

Scott Testers (Southern) Inc. has occupied a new plant and offices at Spartanburg, S. C.

Simon S. Selig, Jr., has been elected president of **The Selig Co.,**

Mr. Selig

succeeding his uncle, the late Albert S. Selig.

Sinclair Oil Corp. has inaugurated a public relations program aimed to promote conservation, as symbolized by the national parks.

E. Clay Timanus has been appointed sales representative for **John L. Stickley Co.,** agents for Oxford Mills division of Burlington Mills Corp. and Peerless Woolen Mills yarns, Nichols & Co. tops, and Rose Mills, Inc., novelty yarns.

G. H. Hallenbeck has been named head of the soap department of **Swift & Co.,** succeeding M. L. Westering, who has been assigned special duties in the office of Swift executive vice-president O. E. Jones.

Chas. S. Tanner Co. has announced that all orders and inquiries should be addressed to the company's Greenville, S. C., office. The Charlotte, N. C., office has been moved to 2300 North Brevard St. Stocks of all the Versenes and Tanner chemicals are

Are You Getting a Fair Day's Work for a Fair Day's Pay?

As Production Engineers we specialize in the utilization of

LABOR—EQUIPMENT—MATERIAL

Our list of clients reads like the Blue Book of American Manufacture, and in our files are many expressions as to our service and results accomplished, like the following:

"We most highly recommend the American Associated Consultants. We think this service is very worth while."
AN IMPORTANT WOOLEN MILL

Write for a free copy of "Labor and Management Benefit by Industrial Engineering Principles," and our booklet "A Fair Day's Pay and in return A Fair Day's Work".

AMERICAN ASSOCIATED CONSULTANTS, Inc.

D. S. KEOGH, President — **H. B. CRAFT, Vice President and Manager of Operations**

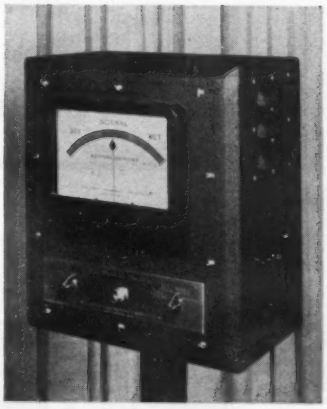
250 PARK AVENUE, NEW YORK 17, N. Y. | GRANT BUILDING, PITTSBURGH, PA. | 30 CAMDEN ROAD, ATLANTA, GA.

A Proved Performer

The MOISTURE MONITOR

for SLASHERS . . . TENTERS DRYERS . . . PICKERS

UPS PRODUCTION As Much As . . . 30%



What a man cannot feel in a warp or fabric a profit and loss statement can show! The low cost MOISTURE MONITOR accurately indicates moisture content. Used profitably throughout America and in foreign countries.

STRANDBERG ENGINEERING LABORATORIES
416 W. Market St. Greensboro, N. C.

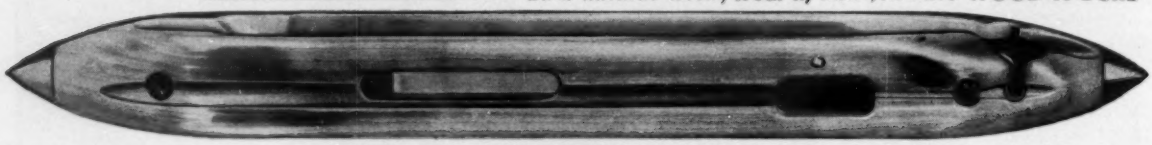
IMPORTANT NEW APPLICATION

With face calibrated in pounds of tare The MOISTURE MONITOR is successfully applied to the picker. Write for details.

You'll be hearing a lot about the amazing

US * WOOD · *N* · DURE PATENTED SHUTTLE

Take natural wood, **treat it,** *and you have* **WOOD-N-DURE**



LISTEN TO THESE IMPRESSIVE ADVANTAGES:

It will better withstand **stresses, shocks and blows** • its "hardened" wearing surfaces afford greatly increased resistance to the wear and abrasion of the loom • when it **does** begin to wear, it wears smoothly and evenly • it resists splintering of the edges • it eliminates the necessity for any fiber-cladding • it is more impervious to atmospheric changes • the treatment leaves the center-section relatively soft to afford maximum holding power around the tip • the natural wood is **toughened,** while the resiliency is **increased!**

* A **WOOD-N-DURE** Shuttle will outlast an ordinary shuttle by **2** to **1** or better!

U S BOBBIN & SHUTTLE CO.

For quotations write to nearest address

THE SEAL OF QUALITY AND SERVICE — US — SINCE 1857

Manufacturing Plants
LAWRENCE, MASS. • GREENVILLE, S. C.
General Sales Office LAWRENCE, MASS.
Southern Division Headquarters: 428 Birney St., GREENVILLE, S. C.
BIRMINGHAM: Young & Van Supply Co.
DALLAS: O. T. Daniel, Textile Supply Co. LOS ANGELES: E. G. Paules, 1762 W. Vernon Ave.

How much credit would YOU extend?

Client: Garment Manufacturer
Capital: $38,000
Experience: 12 years
Record: Clear
Volume: $600,000

How much credit would YOU extend?

☐ $10,000
☐ $25,000
☐ $75,000

OUR SECOND CENTURY — JT INC. — FOUNDED 1853 — FACTORING AND FINANCING

WHY NOT LET TALCOTT'S CREDIT DEPARTMENT CHECK THESE PROBLEM ACCOUNTS?

Make your credit policy liberal and profitable with a Talcott Factoring plan.

JAMES TALCOTT, INC.
FACTORS

209 SOUTH LaSALLE STREET; CHICAGO 4, ILL. Financial 6-1444
225 FOURTH AVENUE; NEW YORK 3, N. Y. ORegon 7-3000

Anderson Shields are dependable protection against chipping, splitting, and breaking of spools, bobbins, and paper caps. Even the most minute details are carefully worked out to make Anderson the highest in precision, the smoothest in finish, the best in performance. The Anderson Emblem is your assurance of the finest shields you can buy.

Insist on Anderson when you order metal shields regardless of when you buy spools and bobbins.

TEXTILE SHIELD CO., INC.

J. N. ANDERSON, Treasurer

LAWRENCE, MASS., U. S. A.

SUPPLIERS News — WHAT THEY ARE DOING

maintained both in Greenville and Charlotte.

Al Amatruda has been promoted to manager of knitwear sales for the fiber division of **Virginia-Carolina Chemical Corp.**

Texize Chemicals, Inc., has appointed Walter M. Greer sales representative in Alabama, Georgia, and

Mr. Greer

South Carolina for the company's industrial division.

Trust Co. of Georgia has reported consolidated net earnings after taxes, of $1,916,798.81 in 1954, highest in the 64-year history of the company.

Anthony Moos was recently elected a vice-president of **Universal Winding Co.** He will continue as general manager of Universal's Patterson-Moos Division.

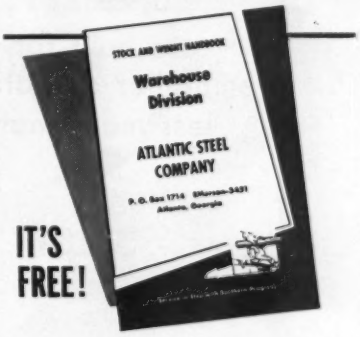
Vanton Pump & Equipment Corp. has moved its executive and sales offices to its plant at 201 Sweetland Ave., Hillside, N. J.

Walther H. Feldmann has been named executive vice-president of **Worthington Corp.,** succeeding Edwin J. Schwanhausser, who was recently elected president. * * * George E. Bowdoin, former president of U. S. Hoffman Machinery Corp., has joined Worthington as assistant to the president.

William C. Brown, formerly project engineer with J. P. Stevens Manufacturing Research, has joined **Marshall & Williams Southern Corp.,** in the capacity of sales engineer, with headquarters in Greenville, S. C.

Crown Chemical Corp., has appointed John J. Valter technical sales director to cover the southeastern states. His headquarters will be in Greenville, S. C. Formerly he was technical sales representative for Metro-Atlantic Inc., in Greenville.

Every Textile Mill Needs This Steel Handbook



IT'S FREE!

Latest, complete stock and weight handbook. Tells at a glance the types, sizes and shapes of steel warehouse products carried for you by one of the South's largest steel warehouses. Saves you valuable time. We'll be glad to send a copy on request. Then, you can easily order by phone, whatever you need, one piece or a carload.

- **Cold-finished Shafting**
- **Carbon Steel Bars and Shapes**
- **Plates and Sheets**
- **Structurals**
- **Stainless Steels**

24 to 48 HOUR DELIVERY Throughout the South BY TRAIN • BY TRUCK

WAREHOUSE DIVISION

Atlantic Steel Company

575 14th St. N.W. Atlanta 1, Georgia EMerson 3451

DARNELL CASTERS
& E-Z ROLL WHEELS

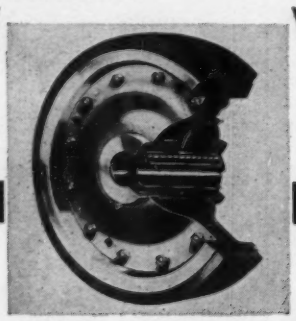
are built for
smoother operation
•••less maintenance

RUBBER TREADS . . . a wide choice of treads suited to all types of floors, including Darnelloprene oil, water and chemical-resistant treads, make Darnell Casters and Wheels highly adapted to rough usage.

RUST-PROOFED . . by the Udylite process, Darnell Casters give longer, care-free life wherever water, steam and corroding chemicals are freely used.

STRING GUARDS . . . Even though string and ravelings may wind around the hub, these string guards insure easy rolling at all times.

LUBRICATION . . all swivel and wheel bearings are factory packed with a high quality grease that "stands up" under attack by heat and water. Zerk fittings are provided for quick grease-gun lubrication.



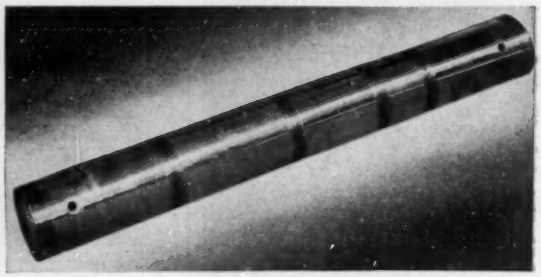
Free Manual

DARNELL CORPORATION, LTD.

DOWNEY (LOS ANGELES COUNTY) CALIFORNIA
60 WALKER STREET, NEW YORK 13, NEW YORK
36 NORTH CLINTON STREET, CHICAGO 6, ILLINOIS

MORE production
LOWER costs!

With
Gastonia
TEXTILE SHEET METAL PARTS



Cylinders

For continuous, high-speed production . . . at lower costs . . . top performance of your Spinning, Twister, Spooler and Quiller Cylinders is a must.

Gastonia Cylinders are dynamically balanced and scientifically tested for better performance.

We manufacture, repair and rebuild cylinders to your specifications.

GASTONIA Cylinders—like all other GASTONIA Products—are made of the finest materials by highly skilled workmen with precision machinery.

Many years of practical experience go into every product.

CARD SCREENS
Standard type rib or perforated—cut and assembled on special precision-built jigs.

SCREENS
Picker, Condenser and Waste Machine Screens of maximum strength and durability.

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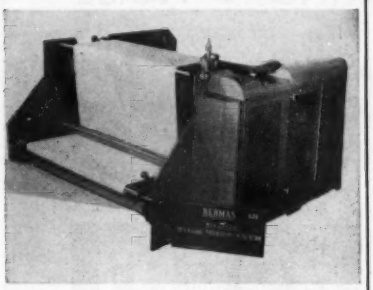

Heretofore it has been impossible to shear nubby and other textured fabrics on a conventional shear or other types of selvage trimmers. The same action that removed selvage threads also sheared off the terry or other textures in the cloth.

This new Hermas machine functions only in relation to the cloth selvages, which it cleans at rates of up to 150 yards a minute.

Regardless of selvage movement due to variations in width caused by uneven cloth winding or tension change, the trimming unit is instantly guided automatically to the selvage.

Each head is a complete unit with its integral suction and automatic guiding mechanism.

The new trimming unit will process all weights of fabric from blankets to organdy. It will clean metalized and fibreglas cloth as readily as softer fabrics.

It will handle up to 36" diameter rolls and widths up to 120".

You too can now economize safely by machine-cleaning your nubby or textured fabrics, or plain cloth on this selvage trimmer.

Write today for illustrated bulletin describing the new Hermas selvage trimmer.

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HERMAS

MACHINE COMPANY

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Dye Dacron-Wool Blends at 250 F without Carriers

Heretofore, high temperature dyeing has not been used for blends of "Dacron" and wool since the wool is severely degraded at 250 F. Now a process for dyeing these blends at 250 F without carriers that maintains the physical and aesthetic properties of the wool has been developed, according to information received from Du Pont.

The experimental work has been done on fabrics in the Barotor. However, the benefits realized on fabric are believed applicable to stock, top, and yarn dyeing at high temperature. In this process a small amount of formalin is added to the dye bath to protect the wool from degradation and to maintain its soft, full hand. The maximum degree of protection is realized at pH 4.0 to 5.5, although appreciable protection is obtained at higher or lower pH.

The use of formalin has the added advantage of yielding greater color value and brightness of shade on "Dacron" polyester fiber with less staining of the wool component. The staining that does occur is on tone. Material and time savings make the 250 F dyeing process very attractive economically.

The process has been demonstrated in both large and small Barotor dyeings in the following modifications:

(1) One-bath, one-step process for simultaneous application at 250 F of disperse dyes to "Dacron" and "Chromacyl" dyes to wool.

(2) Two-bath processes for dyeing Du Pont neutral and strong acid wool colors by dyeing the "Dacron" component first at 250 F with formalin and then dyeing the wool in a fresh bath at the boil. While not tested as yet, it is believed that some advantage also can be gained by dyeing the wool component at elevated temperatures and that one-bath processes are also feasible for these classes of colors.

Complete description of the one-bath and two-bath processes are contained in Preliminary Bulletin CSB-D-38 published by the Du Pont Co.

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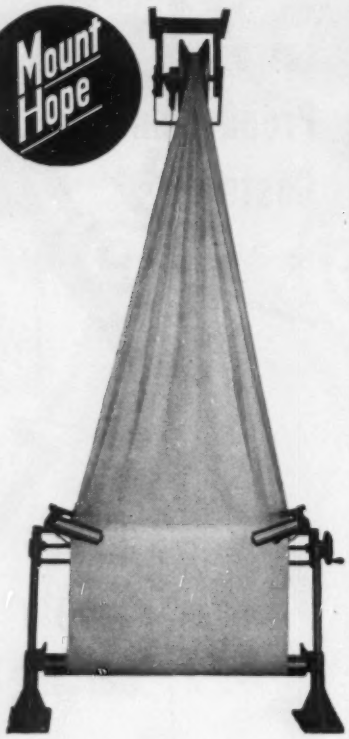

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The KNITTING ISSUE will cover the special interests of this portion of the great textile industry with extra attention to the 42nd Knitting Arts Exhibition to be held in Atlantic City, April 25-29.

If you operate a knitting mill or if you work in a knitting mill, you will want to be sure to see the April issue of TEXTILE INDUSTRIES. It will feature special articles of unusual interest to knitters—news about materials, methods and machinery—including both specialized items and general industrial items.

Because this special issue will be filled with money-making ideas to help you operate more efficiently, it will be useful for reference for many months to come. Be sure your subscription is current . . . if not, RENEW IT NOW and use the handy coupon . . . Don't miss this issue!

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Right to Work Termed Basic to a Free America

The right of American citizens to get jobs and hold them without any compulsion to join or not to join any organization is basic to a free America, Henry G. Riter, 3rd, president of the National Association of Manufacturers, declared recently.

In releasing a four-page study by the NAM of the "right to work" laws which have been adopted by 17 states, Mr. Riter said:

"American industry has a direct responsibility to do its utmost to protect its employees in the right to obtain and hold jobs without compulsion to join or not to join any organization."

Mr. Riter, who is president of Thomas A. Edison, Inc., West Orange, N. J., said that Secretary of Labor Mitchell, who recently expressed opposition to state "right to work" laws, has confronted the American people with a serious challenge to their liberties.

"Not only is a basic liberty of the individual—the right to work—being questioned by a responsible Cabinet officer, contrary to the views heretofore avowed by the President, but the rights of sovereign states to enact laws to protect their own citizens in the right to work are described by Mr. Mitchell as 'doing more harm than good.'

"There is nothing more important to an individual than earning a living. When a man's opportunity to earn that living is abridged by compulsory unionism, he is deprived of one of his most basic and vital human rights. There is no other area of American life in which a citizen is denied freedom of choice."

Mr. Riter emphasized that industry long has stood firm for the principle that every employee or prospective employee should be guaranteed the freedom, without "intimidation or coercion from any source," to join or not to join a labor organization and to maintain or discontinue his membership and participation in its activities.

The NAM statement explained:

"When the fallacies of the union propaganda are exposed and the true facts are disclosed, it is clear that the real motive behind the fight against 'right to work' laws is the desire of union officials for monopoly control over all employees.

"In the words of the Senate Committee Report on the Taft-Hartley bill, union officers can use and have used compulsory membership devices 'as a method of depriving employees of their jobs, and in some cases a means of securing a livelihood in their trade or calling, for purely capricious reasons.'

"Once such monopoly power is established, an individual employee can escape it only by committing economic suicide. It is this union monopoly control over employees that the state 'right to work' laws are designed to prevent."

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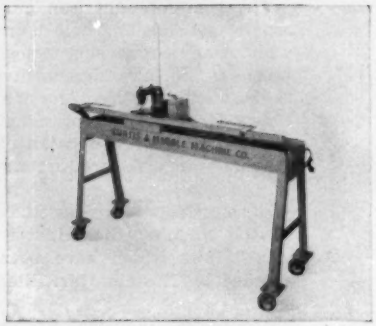

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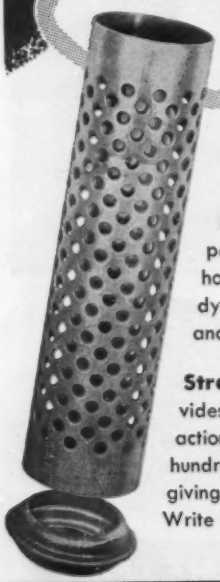

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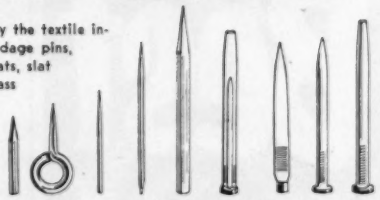

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Experimental Textile Machine, Using Telegraph Controls, Called Step Toward Automation

An experimental embroidery machine, using modified telegraphic controls, which "contributes by specific example to the nation of the automatic factory," was described recently to electrical engineers at the Hotel Statler in New York City.

The process, by which the machine is controlled by telegraph signals from perforated tape similar to that used by teletypewriters, may be capable of being expanded to run gangs of machines simultaneously by remote control, and may also have application in weaving, it was reported.

Louis Casper, patent attorney, research engineer and vice-president of Electrotext Corporation, New York, told a telegraph facsimile systems symposium at the winter general meeting of the American Institute of Electrical Engineers that from the results of experimental operation of a prototype machine "it may be concluded that automation designers will find a valuable point of departure in the use of electro-mechanical units already familiar to telegraph engineers; and that the latter might profitably extend their normal interest in the transmission of intelligence signals over wires to comprehend the new uses of signals for the control of mechanisms, in the textile industry among others."

The experimental embroidery machine described by Mr. Casper in his paper, "Textile Automation by Signal Control," it was stated, is "capable of responding to tape control at the average rate of 500 stitches per needle-minute—the color, direction, and length of each individual stitch having been put

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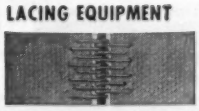

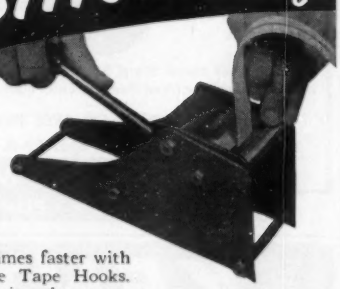

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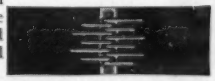

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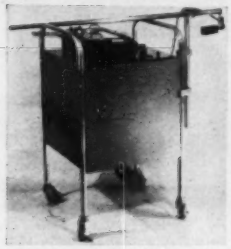

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The High Speed Recording Tensiometer was developed by the Celanese Corporation of America for measurement and proper regulation of yarn tension in the textile industry. However, the instrument is equally applicable to the study of tension variation in fine flexible wire, or to the study of surfaces in contact with a running yarn or wire system. Small bearings can also be introduced into the system resulting in tension variation patterns characteristic of mechanical parts of the bearings.

The instrument has a frequency response up to 120 cycles per second, and a sensitivity as high as four millimeters deflection on a standard direct writing recorder per gram of tension in the yarn. Under normal plant conditions, heavy machine and plant vibrations are cancelled by using two beams with bonded resistance strain gages working to opposition. The record produced is a true record of tension variation only. Stops are provided to prevent overstressing these beams. To use the instrument it is only necessary to place the pulleys over the running yarn and twist the sensing head until the yarn forms an S shape over the pulleys.

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Although weaving looms are not as versatile in some ways as embroidery machines, . . . "the multiple-colored embroidery machine may find itself, in certain situations, in competition with the loom for producing over-all patterns and even for solid textures of one color," Mr. Casper said.

New Books

Practical Worsted Combing, by T. F. Griffin who is chief technician, worsted processing, Department of Textile Industries, University of Leeds, contains a description of almost all features of Noble and rectilinear combs and explanation of the reasons for the various settings utilized. Also includes chapters on backwashing and gill boxes. Written for students and mill personnel. Chemical Publishing Co., Inc., 212 Fifth Ave., New York, N. Y.

Composition of detergents, how detergents are used, factors determining choice of detergents for specific uses, evaluation of results, trends in detergent research are a few of the subjects covered in *Industrial Detergency* recently published by Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y. (price, $8.75).

Wool Shrinkage and its Prevention, by R. W. Moncrief, is an effort to cover the entire subject in one volume. Fundamentals of wool fiber structure, shrink resistance, and methods used for prevention of wool shrinkage are discussed in detail from the viewpoint of not only the wool industry but also the manufacturers of blended fabrics containing wool. Chemical Publishing Co., Inc., 212 Fifth Ave., New York 10, N. Y. (price, $10.50).

Available from Transatlantic Arts, Inc., Hollywood-by-the-sea, Fla., is the 200-page, cloth bound book *Textile Calculations Simplified*, by John H. Strong. Subjects covered include: yarn count systems, calculations and conversions; simple folded, fancy and blended yarns; diameter, moisture content, extensibility, twist, strength; testing yarns and fabrics; reed count systems; contraction in weaving; weights of warp and filling, balancing and sizing; calculations on machinery for drawing, spinning, preparation and weaving.

Volume 5 of the *Review of Textile Progress* covering the period 1953-54 has been published by the Textile Institute and Society of Dyers and Colorists. Subjects dealt with: Physics and chemistry of fibrous materials; fiber production; conversion of fibers into finished yarns; fabric produc-

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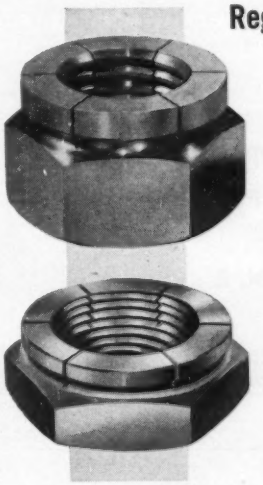

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An Executive Views the News

(*Continued from page 79*)

million which would be "made available in U. S. funds to India." Now, if we understand this correctly, it is really one for the books! We are going to "sell" India 120,000 bales of American cotton at a price of $20 million and we are going to give them the $20 million to buy the cotton. Indian mills are going to use the cotton to produce "superior, finer varieties of cloth" so that they may send these better qualities into the United States to compete with American mills.

In fairness to all concerned, we must say that there certainly is some other explanation than that which was contained in the brief statement of the Commerce Ministry spokesman. Perhaps some one, somewhere, can give us the explanation.

For our part, we are afraid to delve any further into the question for fear we might find that the United States Government provided the press agent who prepared the public announcement made by the Indian Commerce Ministry spokesman.

The cup of hemlock, George. We've seen enough.

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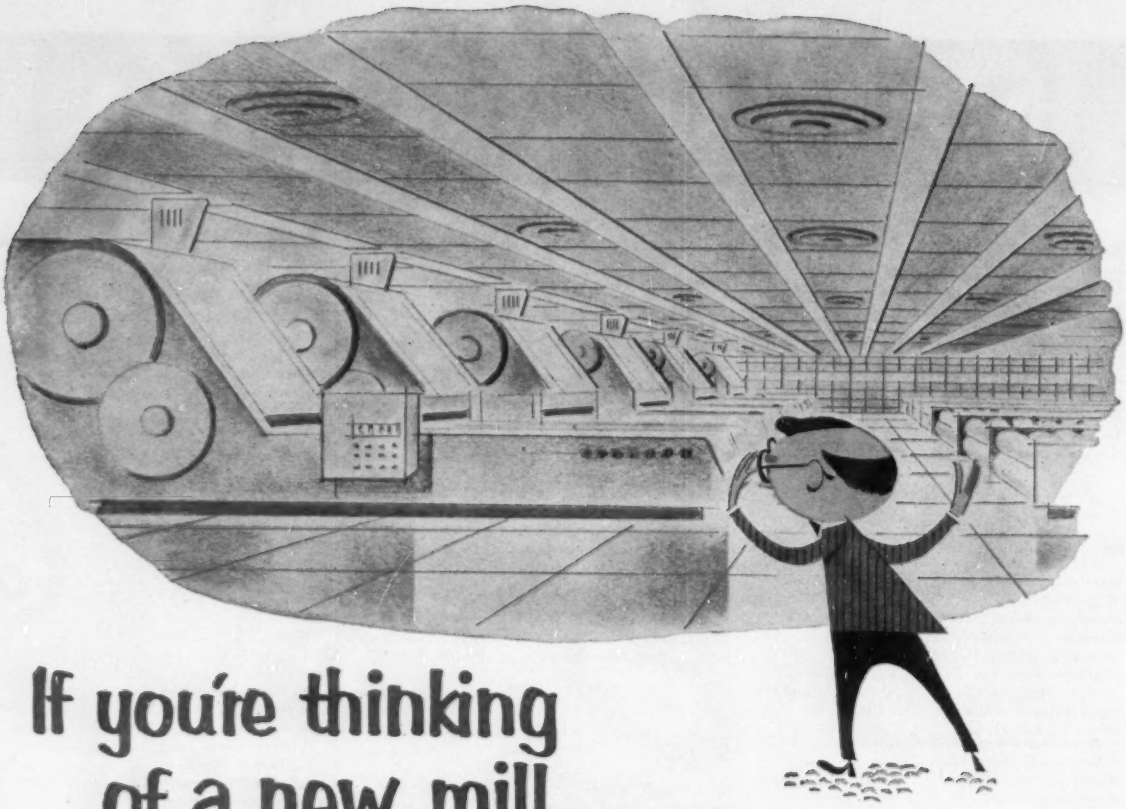

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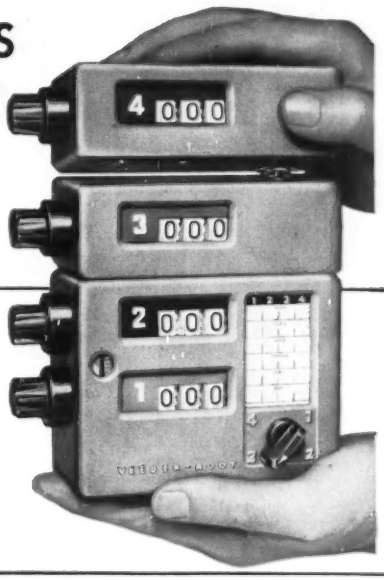

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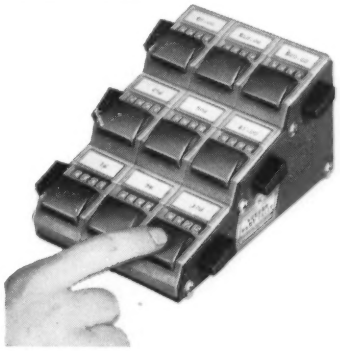

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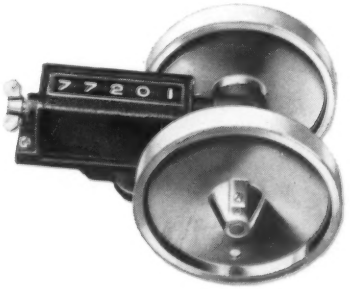

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